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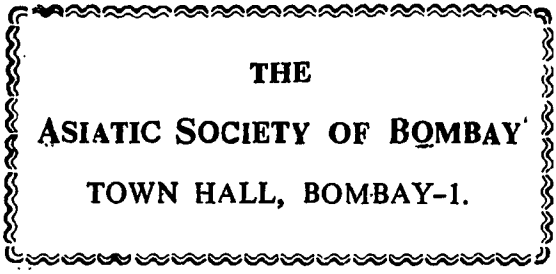

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CRETE
THE FORERUNNER OF GREECE

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BY

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CRETE

THE FORERUNNER OF GREECE

BY

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AUTHOR OF "IN THE UTTERMOST EAST"

AND

HARRIET BOYD HAWES, M.A.

AUTHOR OF "GOURNIA, VASILIKI AND OTHER PREHISTORIC SITES IN CRETE"

WITH A PREFACE BY

ARTHUR J. EVANS

D.LITT. OXFORD, F.R.S., F.S.A.

ILLUSTRATED WITH A MAP AND PLANS

Q.e.48

LONDON AND NEW YORK
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PREFACE

THE recent discoveries in Crete have added a new horizon to European civilization. A new standpoint has been at the same time obtained for surveying not only the Ancient Classical World of Greece and Rome, but the modern world in which we live. This revelation of the past has thus more than an archæological interest. It concerns all history and must affect the mental attitude of our own and future generations in many departments of knowledge.

At the same time, the complexity of the details and the multiplicity of the recent explorations, and the fact that many of the results are as yet imperfectly published, must make it extremely difficult for the ordinary intelligent reader to gain a comprehensive idea of this "Greece beyond Greece," brought to light on Cretan soil. For more advanced archæological students, indeed, Mr. Ronald Burrows' work on *The Recent Discoveries in Crete* has supplied a useful summary. But for the general reading public a simpler statement was required, and it seems to me that this service has been successfully rendered by Mr. and Mrs. Hawes in the present book.

They have the great advantage of writing 'not as the scribes'—but as active workers in the field that they describe. Mrs. Hawes, as Miss Harriet Boyd, had indeed herself carried out, in a manner which has won the approval of all competent judges, the excavation of an extensive Minoan settlement at Gournia, the results of which have been presented to the world in a scientific form in an admirably illustrated volume. Mr. Hawes, on the other hand, by his anthropometric researches into both the ancient and modern inhabitants of Crete, has made far and away the most important contributions to our knowledge of their ethnic divisions and physical characteristics that have yet appeared.

Under such guidance the reader may safely trust himself to obtain an illuminating glimpse of this old Minoan world in its various aspects.

ARTHUR J. EVANS.

AUTHORS' NOTE

WE have endeavoured to make this little book of practical service to those visiting Crete as well as to the general reader.

C. H. H.
H. B. H.

ISLIP, OXON,
November, 1909.

τοῖς συνεργάταις
ἡμῶν
ἐν Κρήτῃ

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CHRONOLOGICAL TABLE

B.C.	
Before 3000.	**Stone Age.**
	Cave habitation at Miamu.
	Neolithic dwelling at Magasa.
	Neolithic settlement at Knossos beginning *c.* 10,000 B.C. (A. J. Evans).
c. 3315.	*Dynasty I, Egypt.*
c. 3000–2800.	**Transition to metal.**
c. 2800–2600.	**1st Early Minoan period. Opening of the Bronze Age** (Knossos).
c. 2600–2400.	**2nd Early Minoan period.**
	Settlements at Vasiliki and Mokhlos.
	Burials at Koumasa, Aghia Triadha, Aghios Onuphrios, and in the Cyclades.
c. 2540.	*Dynasty VI, Egypt.*
c. 2500.	*IInd or Burnt City, Hissarlik.*
c. 2400–2200.	**3rd Early Minoan period.**
	Pottery deposits at Gournia (North Trench), Palaikastro, and elsewhere.
c. 2200–2100.	**1st Middle Minoan period.**
	Knossos Earlier Palace built.
	Phaestos ,, ,, ,,
c. 2160.	*Dynasty XI, Egypt.*
c. 2100–1900.	**2nd Middle Minoan period.**
	First climax of Minoan civilization at Knossos and Phaestos.
	Pottery deposits in Kamares cave, Zakro pit, and elsewhere.
	At end, Earlier Palace of Knossos destroyed.
c. 2000.	*Dynasty XII, Egypt.*

CHRONOLOGICAL TABLE

c. 1900–1700.	**3rd Middle Minoan period.**
	Later Palace of Knossos built.
	First Villa at Aghia Triadha built.
	Town at Gournia begun.
	Hyksos invasion; Egypt.
c. 1700–1500.	**1st Late Minoan period.**
	Height of prosperity at Aghia Triadh. (1st palace), Gournia, Zakro, an Psyra.
	Later Palace of Phaestos begun.
	IInd city at Phylakopi, Melos.
	Dynasty XVII, Revival in Egypt.
c. 1580.	*Dynasty XVIII.*
c. 1500–1450.	**2nd Late Minoan or Palace period. Golden Age of Crete.**
	Later Palace of Knossos remodelled.
	Fall of the country towns, Gournia Zakro, and Palaikastro.
	Rise of Mycenæ, Tiryns, and other mainland capitals.
	Reign of Thothmes III, Egypt.
c. 1450–1200.	**3rd Late Minoan period.**
c. 1450.	Fall of Knossos.
c. 1425–1350.	Partial reoccupation of Knossos, Aghia Triadha (2nd palace), Gournia, and Palaikastro.
	Tombs of Kalyviani near Phaestos, Mouliana (tomb B), and elsewhere.
c. 1350–1200.	Steady decline in prosperity and art throughout the island; retreat from sea-coast to mountains.
	Supremacy transferred to the mainland capitals Mycenæ, etc.
	Troy, VIth city at Hissarlik.
c. 1200.	**Transition to Iron. The Homeric Age.**

CRETE THE FORERUNNER OF GREECE

INTRODUCTION

THE island of Crete, known to the Venetians as Candia, has lain for about three thousand years out of the main line of traffic. In fact, when the prehistoric fleets of Crete, the first maritime power of the Mediterranean, gave place to Phœnician craft, the island ceased at once to be the gateway for commerce between Egypt and the European ports of the Adriatic, the Gulf of Salonica, and the Black Sea. To-day the stream of traffic hurries east and west, and the impatient traveller bound for the Indies, Cathay, or the antipodes, is lucky if he catches a distant glimpse of the snow-peaks of Crete.

It seems strange that so beautiful an island, the scene of successive invasions in the past, should have escaped the inroad of the ubiquitous nineteenth-century tourist. The reasons for this were several—the presence of alien Turkish rulers, the frequent revolutions of their subjects, the insufficiency and uncertainty of connections, and the lack of decent accommodations. That the island is becoming known at all is due in the main to archæologists and the 'Cretan Question.'

CRETE, FORERUNNER OF GREECE

Even to classical students twenty, nay, ten years ago, Crete was scarcely more than a land of legendary heroes and rationalized myths. It is true that the first reported aeronautical display was made by a youth of Cretan parentage, but in the absence of authenticated records of the time and circumstances of his flight, scholars were sceptical of his performance. And yet within less than ten short years we are faced by a revelation hardly more credible than this story; we are asked by archæologists to carry ourselves back from A.D. 1910 to 1910 B.C., and witness a highly artistic people with palaces and treasures and letters, of whose existence we had not dreamed.

And, observe, we have leapt over the heads of the Greeks; we have excelled even Icarus in audacity. We have committed an affront in the eyes of some conservative Greek scholars, who still cling to the miraculous creation of Greek art. The theme is a fresh one, because nothing was known of the subject before 1900; it is important, because the Golden Age of Crete was the forerunner of the Golden Age of Greece, and hence of all our western culture. The connection between Minoan and Hellenic civilization is vital, not one of locality alone, as is the tie between the prehistoric and the historic of America, but one of relationship. Egypt may have been foster-mother to classical Greece, but the mother, never forgotten by her child, was Crete. Before Zeus, was the mother who bore him in that mysterious cave of Dicte.

The revelation of a pre-Hellenic culture in the Ægean area is due in the first place to Dr. Schliemann, whose great discoveries on the site of Troy,

begun in 1871, led up to the revelations in Crete from 1900 onwards. It seemed fitting to the Muse of History that a man whose own life was a romance should open to us the door into one of her sealed chambers of the past. Let us in briefest fashion glance at his story.

Henry Schliemann was born in the little town of Neu Buckow, in Mecklenburg-Schwerin, in the year 1822. He grew up in his father's parish of Ankershazen, where his natural disposition for the mysterious and the marvellous was stimulated by the wonders of the locality in which he lived. "Our garden-house," he writes, "was said to be haunted by the ghost of my father's predecessor, Pastor von Russdorf, and just behind our garden was a pond called 'das Silberschälchen,' out of which a maiden was believed to rise each midnight, holding a silver bowl. There was also in the village a small hill surrounded by a ditch, probably a prehistoric burial-place (or so-called Hünengrab) in which, as the legend ran, a robber knight in times of old had buried his beloved child in a golden cradle. Vast treasures were also said to have been buried close to the ruins of a round tower in the garden of the proprietor of the village." His faith in the existence of these treasures was so great, that whenever he heard his father complain of poverty, he was wont to express astonishment that he did not dig up the silver bowl or the golden cradle, and so become rich.

His father taught him Latin and told him of the Homeric poems. Just then, too, the excavations of Herculaneum and Pompeii aroused his interest. With great grief he heard that the

massive fortifications of Troy had disappeared without leaving even a trace of their existence. When his father admitted that ancient Troy had once had walls as huge as were depicted in his history book, the boy retorted, "Father, if such walls once existed, they cannot possibly have been completely destroyed; vast ruins of them must still remain, but they are hidden beneath the dust of ages." The father maintained the contrary, but his son remained firm in his opinion, and at last they agreed that he should one day excavate Troy.

Family misfortunes drove him from home at an early age, and after a short schooling he became a grocer's boy in a little village store. Here for five and a half years he spent long days in dealing out herrings, butter, sugar, and oil, the monotony broken only by one great event. One evening a drunken miller entered the shop, and, in the words of Dr. Schliemann, "recited to us about one hundred lines of the poet (Homer), observing the rhythmic cadence of the verses. . . . Although I did not understand a syllable," he says, "the melodious sound of the words made a deep impression upon me, and I wept bitter tears over my unhappy fate. Three times over did I get him to repeat to me those divine verses, rewarding his trouble with three glasses of whiskey, which I bought with the few pence that made up my whole fortune. From that moment I never ceased to pray God that by His grace I might yet have the happiness of learning Greek."

Many remarkable incidents happened to him that must not detain us here. He injured his chest

in lifting, joined a ship bound for Venezuela, and was wrecked off the Dutch coast. Ultimately, finding a position as office-boy, he endured much privation, spending half his meagre salary on his studies. At this time he learned, in an average of six months each, English, Dutch, Spanish, Italian, and Portuguese. Then followed the acquisition of Russian, and this gave him his great opportunity. He was sent to Russia as agent of his firm, and ultimately set up for himself; and gradually, with diligence and prudence, amassed a considerable fortune. Money was for him the means of realizing the dream of his life. By the year 1863 he was free.

For two or three years he travelled in the New and the Old Worlds, and then settled down at Paris for the study of archæology. In 1868 he made his first long-desired visit to Greece, and in 1871 he began to dig at Hissarlik, in the full belief that he had only to delve in the soil to discover the walls and towers of the city, to which Helen's beauty had brought endless woe. Just as he had ignored the difficulties and misfortunes of his youth, so was he undeterred by the scepticism or infallibility of contemporary scholars.[1] Fortunately for us, he held fast to his belief that myth and tradition possess a large kernel of truth, far more literal than was supposed by the erudite. Coming fresh to the work, without any of the previous training an archæologist receives to-day, he perforce made mistakes, and considerable damage was done. A site which has numerous superimposed settlements or cities requires the extreme care of an experienced hand. But we may forget his shortcomings in the great, the overwhelming

service done by Dr. Schliemann in pushing back the history of the Ægean two thousand years. Discoveries of an earlier date had been made in Babylonia and Egypt, but before Schliemann's time knowledge of Greek lands began with the classical era. Ægean prehistoric archæology is the creation of the last thirty years.

We cannot dwell here upon the details of the great site at Hissarlik, but since it has both connections with the story of archæological discovery and direct relations in point of time and culture with Crete, some reference is due to it.

On the top of a hillock which sustains no less than nine successive settlements stands Roman Ilium with a marble temple of Athena. Next beneath it lie two Hellenic villages which flourished between 1000 B.C. and the Christian era. The sixth city from the bottom is now widely accepted as Homer's Troy, and no doubt would have been thus identified by Dr. Schliemann had he lived but another year. It has a mighty circuit wall with imposing towers, and is built of massive ashlar masonry. Its area is about two and a half times as great as that of the Second City, which was mistaken by Schliemann for the Homeric capital, and it flourished in the latter half of the second millennium B.C. Immediately below this stratum are the remains of three prehistoric settlements with unimportant houses of stone and brick built on and with the ruins of the Second City, and covering the period of *circa* 2000–1500 B.C.

Archæologists were especially interested in the discovery of the Second or Burnt City, which antedates Homeric Troy by as many years as separated

the latter from classical times. It was a small fortress, not more than one-third the size of the Acropolis at Athens, but well built with stout walls of stone surmounted by brick. At this level was unearthed an extraordinary mass of treasure, including silver jars, gold daggers, and diadems of pure gold, one of which was woven of more than sixteen thousand rings and leaves—a Crown jewel, indeed. For many years there lurked a suspicion that the famous Treasure of Hissarlik might have fallen through, in the early days of excavation, from the sixth to the second level, since it seemed far too splendid for the older epoch. But in 1908 Mr. Seager, while excavating at Mokhlos, off the north shore of Crete, discovered similar gold ornaments among objects which were undoubtedly of the same period as the Burnt City, thereby confirming the accuracy of Dr. Schliemann's original record. The Burnt City had a chequered career, for during an existence of about five hundred years, 2500–2000 B.C., it was attacked and destroyed three times. Its predecessor was an unimportant primitive settlement, with walls of small quarry stones and clay, built upon the virgin rock.

If we are to understand the mental atmosphere in which Dr. Schliemann worked, we must remember that he was a free-lance, alien to the world of scholars, and eyed askance by them. But nothing could daunt the idealist. From Troy he followed Agamemnon to Mycenæ, on the mainland of Greece.

There he disclosed within the walls of the citadel deep shaft-graves, wherein lay skeletons of men

women, and children, surrounded by a superb equipment of arms, ornaments, and objects of art, more than enough to fulfil his boyhood's dreams.

These excavations revealed a culture contemporaneous with the Sixth City at Hissarlik, and were supplemented by lesser finds in other parts of the citadel and within the great Bee-hive Tombs that lie outside the fortress walls. Likewise the princely palace at Tiryns, in Argolis, the huge domed tomb at Orchomenos in Bœotia, and the smaller tomb at Vaphio, near Sparta, yielded ample evidence of a remarkable and hitherto unsuspected civilization that flourished during the second millennium before Christ. As yet the earlier culture of the Second City at Hissarlik had not been matched.

Such discoveries could not be ignored, and even aroused enthusiasm. Other explorers entered the field. The Cyclades were tried, and witnessed to an age as remote as the Burnt City. The hunt for the home, the origin, of this Ægean civilization became fast and furious. Before the claim of any site or sites could be recognized as valid, there were two requirements to be satisfied, a sufficiently large local output of the pre-Hellenic art at its best and illustrations of the successive steps in its rise and fall. Of all the islands that lie between Greece and Asia Minor, the most likely were explored. Eager search was also made in Phœnicia, Egypt, and Cappadocia, but the essentials were not forthcoming, the starting-point was not yet reached.

Meanwhile there lay to the south the largest island of the Ægean archipelago, as yet untouched.

Why had it not been attacked before ? The reason was not far to seek—Crete was a land habitually in revolution. No security of tenure could be counted upon ; the Christian peasants were fearful that all finds would be carried off to Constantinople, and Turkish authorities did not favour investigations which threw glory upon an alien and subject people. Only hindrance and failure were to be anticipated from an attempt. In fact, Dr. Schliemann as far back as the early eighties had wished to make a trial in the island, where he "hoped to discover the original home of Mycenæan civilization, but this plan was frustrated by various difficulties and finally by recent disturbances."

Such was the position of archæology at the close of the nineteenth century. The failure to find in any other quarter either the beginnings of this new-old civilization or the stages by which it rose and declined, left Crete practically alone in the field, and Crete waited for release from political bondage to be revealed to the world in its true light.

There were other reasons for believing that the quest would end there. The position of the island as the last port of call between Europe and Egypt, at the gateway of the Ægean, suggested an important rôle in the traffic of the ancient civilized world. Legends and semi-historical references in Homer, Hesiod, Thucydides, Plato, and Aristotle endowed it with a peculiar interest, and raised hopes in the hearts of those archæologists who remembered how often fable had been proved fact.

Zeus himself was born in Crete in the cave of Dicte (or on Mount Ida according to another au-

thority), and was even interred on Mount Juktas. To Crete he pursued Europa, who sits forever in her sacred plane tree on the coins of Gortyna. His mother, Rhea, had a famous temple near the capital city, Knossos, in the days of Diodorus. Rhea's understudy, Britomartis, sought to escape Zeus by fleeing to a rocky finger of land that points out into the sea between the gulfs of Kissamos and Kydonia. The fishermen knew her as Dictynna, goddess of the nets. She flung herself into the sea and reappeared within recent years in Ægina, when Dr. Furtwängler discovered that under her other name, Aphaia, she and not Athena, as heretofore supposed, was patron goddess of the well-known Doric temple.

Legend made Minos, the great sea-king of Knossos, a friend and comrade of Zeus, father of Ariadne and grandfather of a hero of the Trojan War. According to Homer he became a lawgiver in Hades; one must suppose, then, that he had been noted for justice upon earth. But Apollodorus, who gives the opinion current in Athens, describes him as a revengeful king exacting tribute from Athens, every nine years, of seven youths and seven maidens to feed the maw of the hungry Minotaur, or Minos-Bull. All know the story of Ariadne's love for Theseus, and how she helped him to track and slay the beast. Yet while Athenian potters were decorating their vases with pictures of Theseus killing the Minotaur, sure of pleasing the popular taste, Herodotus and Thucydides were referring to Minos in terms as moderate as modern historians might use concerning William the Conqueror.

INTRODUCTION

The Greeks themselves looked upon Crete as the cradle of their law, religion, and art. The famous code of Lycurgus was the fruit of his training in Crete. When a plague fell upon Athens for a violation of sanctuary, Solon counselled that help should be sought from Crete, and a wise man was brought over to purify the city. Diodorus is of the opinion that all the chief Hellenic deities originated in Crete—Demeter, Aphrodite, Artemis, and even Apollo! *Plerique enim dii ex Creta prodierunt et per multas orbis partis divagati bene de gentibus mortalium dum quisque inventorum utilitates suorum cum illis communiat mereri studuerunt.* He is a late writer, but he does not enunciate this view as if it were new in his day. One of the oldest schools of Greek sculpture was established in the Peloponnese by artists from Crete, Dipœnus and Scyllis, and the fabulous Dædalus is variously represented as a native of Athens who emigrated to Crete and made the labyrinth for Minos and the wooden cow for Pasiphæ, or a Cretan who sojourned in Athens and first gave a living appearance to statuary.

Who can wonder that archæologists were eager to follow up such clues? Dr. Hazzidakis, Professor Federico Halbherr, and Dr. Arthur Evans share the chief honours of discovery, and rightly, for they blazed a path in days of stress and danger. Dr. Hazzidakis was president of the local syllogos which cherished antiquities under the Turkish rule, and has been Senior Ephor of Antiquities since Crete's liberation. Professor Halbherr first came to the island in 1884, and reaped a rich harvest of archaic inscriptions, notably the famous Law Code

of Gortyna, containing more than 17,000 letters, the longest ancient Greek Code in existence. Dr. Evans began his Cretan travels in 1894, and, in search of prehistoric beginnings, discovered on sealstones, worn as charms by the women to-day, the oldest form of European writing. From these pictograms he reconstructed the life and customs of a wholly unknown people, and with prophetic vision led the way into new realms of knowledge.

Members of three foreign nations have worked in friendly rivalry to learn the buried history of Crete. At Knossos, Dr. Evans of Oxford has equalled Dr. Schliemann in good fortune, and surpassed him in skill. Professor Halbherr, of the University of Rome, has had parallel success at the palace sites of Phæstos and Aghia Triadha. At Gournia, Miss Harriet A. Boyd (now Mrs. Hawes), acting for the American Exploration Society of Philadelphia, has cleared the most complete pre-Hellenic town yet discovered. To the English record may be added the excavations of Mr. Hogarth at Psychro and Zakro, and of Mr. Bosanquet and Mr. Dawkins at Palaikastro; to the American credit the less extensive but richly productive excavations of Mr. Seager at Vasiliki, Psyra, and Mokhlos. Goulas was given to the French, but was abandoned when M. Demargne failed to find the prehistoric city expected.

Cretan soil may be said to have teemed with pre-Hellenic antiquities. The hopes of archæologists have been abundantly justified. We have followed them and arrived at the home of the first European civilization. It is now our pleasure to become acquainted with it.

I

SURVEY OF THE PREHISTORIC PERIODS OF CRETE

WE have in brief fashion resumed the way by which was made the great discovery of a remote civilization existing in the Ægean area and originating in Crete. It is not our purpose to write an archæological treatise dealing minutely and in technical language with Cretan excavations. Yet without a previous outline of their results even a general description would be unintelligible to the lay reader, so great and varied is the material. A book of this kind must reverse the order of the spade. For whereas the excavator begins at the surface and reads history downward, one who writes on the subject must 'begin at the beginning,' that is, with what the excavator has learned at the bottom of his pit. And whereas the excavator, from a mass of careful observations, forms his picture of the past, the writer must first sketch the broad outlines of the picture, and then fill in the details. For scaffolding he will use the structure that has cost the excavator years of effort, namely, his system of chronology.

The Golden Age of Crete, when did it begin and how long endure? If we use the phrase in its narrower sense, we must limit the time to *c.* 1500–

1450 B.C., only half a century, like the Age of Pericles, the brilliant 'Fifty Years' of Athens. But as the whole classical era of Greece appears golden in contrast to the later obscurity, so the whole Minoan Age of Crete shines by comparison with what followed. The Minoan Age began at the end of the Stone Age with the introduction of bronze weapons and tools, and ended with the incoming of iron, which replaced the softer metal. During this long period of about two thousand years, covering roughly the third and second millenniums before Christ, whether it be spears, daggers, saws, nails, fish-hooks, or kettles, they were of bronze and never of iron. The term Minoan is a picturesque equivalent for the Bronze Age of Crete, and was chosen by Dr. Evans because Knossos, the capital of King Minos, was inhabited from the beginning to the end of this era, and has furnished more complete data for the study of its development than any other site.

For the sake of thoroughness, let us mention the little that is known of pre-Minoan times, before explaining the now widely accepted scheme of Minoan chronology.

Of the Palæolithic or Old Stone Age in Crete there is at present no evidence. Although the island was cut off from the mainland of Greece rather earlier than from Asia Minor, geographically it is a detached piece of Europe, and in Minoan times played the part of an outpost of that continent.

Anthropologists are inclined to the view that the Neolithic people of Crete were immigrants, and probably came from North Africa, but the time

of their coming cannot even be surmised. Knossos and Phæstos both have Neolithic settlements beneath the Minoan ; and other sites in the south and east of Crete are known to antedate metal. Dr. Evans, by a comparison of the Knossian strata, has arrived at figures for the duration of each occupation. The deposit of historic and Minoan times from the surface to the top of the Neolithic is 5·33 metres thick, and represents a passage of time, fairly attested, of more than five thousand years, or about one thousand years to a metre deposit. As it is probable that the further we go back the slower the progress, one thousand years to a metre deposit seems a minimum estimate for the Neolithic occupation. Adding, then, the 5·33 metres above the Neolithic stratum to the 6·43 metres of the Neolithic stratum, we have twelve metres or about twelve thousand years. Thus we arrive at a possible dating of *c.* 10,000 B.C. for the beginning of the settlement of Knossos. The question arises whether the first-comers were in an early stage of Neolithic culture, as compared with other parts of Europe. The Neolithic settlement at Knossos was quite extensive, stretching from the east slope of the knoll on which the palace stands to the West Court. In it were found stone axes, maces of serpentine, obsidian knives, and stone and clay spindle whorls, but no traces of metal. Yet at the very bottom on virgin soil the finds do not represent a really crude Neolithic culture such, for instance, as in Britain.

It is true that the pottery is of poorly mixed and badly baked clay, but there is also present a ware

with a lustrous surface, due to hand polishing. At a considerable depth (9 metres) some potsherds bore incisions like the marks on a cottage tart or pie; at a higher level similar incisions were filled with chalk, foreshadowing, perhaps, a decoration common in the Bronze Age, of white paint on a smooth black surface, an advance that took some thousands of years to accomplish. Another favourite effect was procured by the use of a blunt bone instrument worked steadily in wavy lines from top to bottom of the vase. In Minoan times, when the bone tool had yielded to the brush, 'the rippling' still continued, being reproduced by white paint on a dark ground and by dark paint on a buff ground, showing one of several permanent elements in the age-long culture of Knossos—the Neolithic and the Bronze Age with no break between them.

If Knossos and Phæstos knew only the more advanced forms of Neolithic culture, there are other sites which reveal a cruder and probably an earlier stage. In 1905 one of the writers accompanied Mr. Dawkins, the present Director of the British School of Archæology at Athens, to Magasa, a mountain village in Eastern Crete, near which several polished stone axes had been found. Hundreds of bone awls and much very rude pottery rewarded the search. The blunt form of the axes and the extreme crudeness of the pottery (incision was rare and rippling unknown) led Mr. Dawkins to place this site early in the Neolithic period. Obsidian chips were found, pointing to intercourse with Melos, the only source of obsidian in the Ægean, but no obsidian knives occurred, and we may infer

that the art of flaking them had not yet been learned. Still more primitive were the traces of human habitation discovered by Sig. Taramelli in the grotto of Miamu. The fire hearths, bone darts and spatulas of huntsmen, not unlike the debris of a cave-dwelling in Central Europe, were buried in a thick bed of decomposed organic matter, beneath a deposit of Minoan times.

The end of the Neolithic is the beginning of the Bronze Age, for although copper may have been in occasional use during the transition, a Copper Age cannot be predicated for Crete as for Cyprus. The introduction of metal seems to have taken place at about 2800 B.C. The other limit of the Bronze Age may be put at about 1200 B.C.; probably bronze continued to be used in out-of-the-way districts when it had been replaced by iron elsewhere, so that this date must be regarded as elastic.

The Minoan or Bronze Age has been divided by Dr. Evans into three periods, Early, Middle, and Late Minoan, and each of these subdivided into I, II, and III, representing rise, culmination, and decline. It is desirable that the reader should make himself familiar with these terms and the general characteristics they connote. For, since absolute dating is impossible, as in geology, one must have frequent recourse to a relative chronology. Perfect unanimity exists among Cretan archæologists as to this relative chronology, that is to say, as to the position of their discoveries in the Minoan scheme. The material they deal with is enormous, and great confidence may be reposed in their results. Thus for Dr. Evans, Professor Halbherr, and the

writers, the Second Middle Minoan period has the same content, if not the same probable date. Even in the attempts to fix absolute dates there is increasing agreement. The Minoan periods and their subdivisions stand in the systems of Dr. Evans and Mrs. Hawes as follows:

A. J. EVANS.[1]	H. B. HAWES.
	E.M. II, *c.* 2500.
M.M. I, *c.* 2200–2000	M.M. I., *c.* 2200–2100
M.M. II, *c.* 2000–1850	M.M. II, *c.* 2100–1900
M.M. III, *c.* 1850–1600	M.M. III, *c.* 1900–1700
L.M. I, *c.* 1600–1500	L.M. I, *c.* 1700–1500
L.M. II, *c.* 1500–1350	L.M. II, *c.* 1500–1450
L.M. III, *c.* 1350	L.M. III, *c.* 1450–1200
	HOMERIC AGE.

These systems are based on connections with Egypt. Egyptologists differ widely in their dates for Pharaohs prior to the Eighteenth Dynasty (*c.* 1580 B.C.), hence our difficulty in ascertaining the absolute age of Cretan antiquities which are known to be contemporaneous with the earlier Pharaohs. There is a growing conviction, however, that Cretan evidence, especially in the eastern part of the island, favours the minimum (Berlin) system of Egyptian chronology, according to which the Sixth Dynasty began at *c.* 2540 B.C., the Twelfth at *c.* 2000 B.C., and the Eighteenth at *c.* 1580 B.C. This system is adopted in the pages that follow, and affords three easily remembered

[1] The above is Dr. Evans' revised chronology kindly communicated by letter to the writers, October 28, 1909. That of Mrs. Hawes appeared in *Gournia*, published November, 1908.

dates for the three great eras of Minoan Crete, namely:

Early Minoan II, *c.* 2500 B.C., parallel with the Sixth Dynasty.
Middle Minoan II, *c.* 2000 B.C., parallel with the Twelfth Dynasty.
Late Minoan II, *c.* 1500 B.C., parallel with the Eighteenth Dynasty.

Even in the Early Minoan Period, roughly contemporaneous with the Old Kingdom of Egypt, house-building and the crafts had made considerable progress. Native art, although still in its infancy, was fully alive and vigorous, not merely imitative. Crete was in contact with Egypt on the one hand and with Hissarlik and the Cyclades on the other—pupil of the former, teacher of the latter.

In the Middle Minoan Period, parallel with the Middle Kingdom of Egypt, Cretan civilization reached its first climax. Knossos and Phæstos asserted their leadership of the island. Crete traded freely with Egypt; her palaces were full of stores from Africa, Asia, and Europe. Through this intercourse the islanders exchanged religious ideas with other lands, and possibly received the hint to develop their own local pictograms into a form of writing; but Cretan receptivity was as active as that of Greece in later times, developing and transforming what was of foreign origin into a product essentially her own. This era was distinguished by brilliancy, dignity, and a remarkable thoroughness in all the arts.

The First Late Minoan period represents the height of prosperity for the smaller towns of Crete.

It was a time of peace and healthy artistic tendencies. Builder, potter, painter, and sculptor worked rapidly and freely, not with the thoroughness and precision of Middle Minoan artists, and not yet with the conscious love of display that characterized the 'Palace Period.' In no other stage of Cretan development is joy in art more apparent or so widespread; even the humblest articles of household use are decorated, and great attention is paid to their form.

Pomp and splendour are the key-notes of the Second Late Minoan or Palace Period—the Golden Age in its narrower sense. It witnessed the remodelling of the royal residence at Knossos on a truly magnificent scale, and the completion of the Second Palace at Phæstos with its spacious courts, broad flights of stone stairs and pillared halls. Several thousand tablets testify to the common use at this time of a linear writing, probably syllabic. Inlaying was done with *kyanos*, crystal and the precious metals, and gold ornaments were cunningly devised. Bronze and stone vessels of great size and beauty were manufactured. A lavish use was made of brilliant frescoes and painted reliefs, recalling those of Egyptian tombs and palaces in technique, but not in spirit. Sometimes artistic principle was sacrificed to love of display, and builders resorted to shams in order to heighten effect or conceal poor work. This period closed with the sudden destruction of Knossos. There was no true revival; the glory of Crete had departed for ever.

Centuries passed before the great wave of Dorian invasion, that engulfed Greece in darkness,

swept over the once famous island. More than one inroad preceded it; an advance guard of Dorians who came from Thessaly avoiding Greece; Pelasgians and Achæans from the mainland turning the scale of power and filling Crete with the mixed population known to Homer. In the Third Late Minoan period art lost all originality; only convention remained; letters died out; but swords increased in length, as if to typify for us not only the growing influence of the North, but the greater part strife was to play in the next stage of human development. At length with weapons of iron came contention and fear, utterly divorcing men from peaceful pursuits, driving them to the hilltops for safety, and by the harshest means revivifying them for the renaissance of the Greek world.

II

PHYSICAL CHARACTERISTICS, DRESS, AND HOMES OF THE MINOANS

BEFORE seeking acquaintance with the chief Minoan sites and works of art, it will be well to know something of the people themselves, their everyday circumstances, occupations, and ideals.

Who were the Minoans? Archæologists have sought an answer to this question ever since their first discóveries. Human remains of Minoan times have been brought to light in cave and ossuary, and have been turned over to anthropologists for examination. Professors Sergi and Boyd Dawkins, Dr. Duckworth and Mr. C. H. Hawes agree in assigning them to a type which persists in the Mediterranean basin to-day, and is called by Professor Sergi 'the Mediterranean race.' Modern Europe is divided racially into three belts, of which the southern is occupied by the Mediterranean race, the central by the Alpine, and the northern by the Nordic or Teutonic race. The Mediterranean race type is dolichocephalic or long-headed, brunet, and of short stature, well represented among the Sardinians to-day. About one hundred Minoan skulls have been measured, chiefly by Dr. Duckworth, and of these the great majority are distinctly long-headed. The average stature esti-

mated from the long bones of the skeletons was under five feet four inches, at least two inches less than the average of the modern inhabitants. Among the skulls were a few broad-heads, whose presence is somewhat puzzling. The earliest of them may have come from Anatolia, but by the end of the Minoan Age their increasing numbers probably point to an influx from the valley of the Danube. The whole question awaits the results of recent investigations made by Mr. Hawes at the instance of the British Association for the Advancement of Science. But a few words may be said tentatively on the subject.

In studying certain physical characters, *e.g.* stature and measurements of the head of modern Cretans, we hope to gain light on the ancient population, and to assign it a place ethnically among the races of antiquity. Anthropologists are generally of opinion that certain physical characters, particularly the shape of the head, are fixed—at least for several thousand years. An illustration of this comes from the Dordogne valley, where Dr. Collignon found peasants still maintaining the curious and exceptional combination of the long head and the broad face of the cave-hunters of the Old Stone Age who lived possibly 20,000 or 30,000 years ago in that very region. Another illustration comes from Egypt, where a careful comparison made by Dr. C. S. Myers between the modern peasants and the pre-Dynastic skulls shows no appreciable change in head measurements during a period of 6000 or more years.

Comparative permanence of type, by which is

meant permanence among a majority, involves comparative purity of race. Absolute freedom from intermixture is difficult if not impossible to find, but intrusions of minorities, or of the male sex only, as has so often been the case, or immigrations from an alien clime stand little chance of materially altering the race. In time the alien element will breed out. Dr. Collignon says on this point, "When a race is well seated in a region, fixed to the soil by agriculture, acclimatized by natural selection and sufficiently dense, it opposes, for the most precise observations confirm it, an enormous resistance to absorption by the new comers, whoever they may be.

In the case of Crete, our earliest evidence shows already a broad-headed minority—we think an alien minority—alongside the majority of long-heads mentioned above as of the Mediterranean race. To-day, nearly 4000 years later, this broad-headedness has increased in number and percentage, although the modern Cretans are not like their Greek neighbours, brachycephalic, but mesocephalic. During these 4000 years there have been many invasions and immigrations. Towards the end of the Bronze Age, according to tradition, came the Achæans, followed by the Dorians. In historic times Saracens, Byzantines, Venetians, and Turks have overrun and held sway in the island. Most of these peoples were broad-headed and taller than the Minoans. The influence of the Turks as the latest arrivals is traceable though not marked. The other elements left few obvious traces except the Dorians, who probably affected the Cretan type most. In the present state of our

knowledge this is a somewhat bold statement to make, and we put it forward provisionally.

Tradition, philology, and archæology attest a repeated and finally serious Dorian invasion of the island, but unfortunately for anthropology the introduction of cremation lessened the chances of examining their skulls. The fairly common belief, however, that they came, or the bulk of them, from the north-eastern end of the Adriatic helps us, for this region fed from north and east has been for thousands of years a broad-headed area. Also from Crete itself comes aid. There is an eparchy or county of Crete where the dialect is more Dorian than elsewhere in the island, and whose inhabitants, isolated by mountain barriers, a bellicose temper, and the custom of endogamy, claim to be of Dorian descent. These are the Sphakiots, and they are, perhaps, with one exception, the broadest-headed people in the island.

A new method in race analysis was tried this year by Mr. Hawes, in which the actual shape of the head, taken direct, and not deduced from two or three measurements, was contrasted. A comparison was made by this method of the curves or contours of heads of Sphakiots, Tsakonians (the people who speak the most Dorian dialect in Greece), and the Albanians, and the analogy was found to be striking.

After a little familiarity with the type it became possible frequently to recognize a Sphakiot, sometimes to our mutual embarrassment, or to correct a false genealogy, as happened once to the astonishment of the bazaar where the mystery was much discussed. This type is not confined to Sphakia in

Crete, but was found in small numbers in the Messara plain and elsewhere. Although forming a minority in the island, it is the most striking divergence from the long-headed or Mediterranean type. To this latter belong the bulk of the population, though not without modification in the direction of a broader head and an increased stature. The areas where the type is found purest and in the greatest numbers are in the west end of the island and in the Lasithi massif. The latter was to be expected, but the former is a region almost unknown as yet to Minoan archæology, although the Kydonians of this district, of whom Homer tells us, have always been considered cousins of the other Bronze Age inhabitants of Crete.

Dr. Mackenzie, who has so ably assisted Dr. Evans at Knossos, has sought to establish the continuity of the ancient Cretans throughout the Neolithic and Bronze Ages by an appeal to the homogeneity of form, texture, and material in the pottery left by them. His analysis excludes the possibility of any strong alien influence before the close of the Bronze Age.

We are not dependent entirely on dry bones for our ideas of what the Minoans were like. Pictures of them have survived on the walls of Egyptian tombs and Cretan palaces, and we have smaller likenesses of them in bronze figurines, gem intaglios and steatite reliefs. Making due allowance for artistic conventions, we may come to some fairly reliable conclusions. The men were bronzed, as are the men of Crete to-day, with beardless faces, and dark hair, which they wore coiled in three twists on the head, and falling in three long

curls over their shoulders. The women's complexions were, no doubt, fairer; artists politely represented them as white, whereas they used a copper hue for men. Heads were small; features were rather sharp; Mr. Hall speaks of the 'European visaged' Keftian or man of Crete, who typifies the western quarter of the earth in the tomb of Puamra, one of Queen Hatshepsut's nobles (*c.* 1500 B.C.). The male form was spare, 'wasp-waisted' in art, lithe and sinewy; hands and feet were slender. One would say a small-boned race, relying more on quickness of limb and of brain than on weight or size. The trait the artists loved chiefly to portray was the high spirit, the graceful hauteur of the Minoan youth, καλὸς κἀγαθός. And the women who dance and converse on Knossian walls have a self-assurance and sparkle that modern belles might envy.

In their most primitive days Cretans may have worn skins, cutting them with obsidian knives, and lacing them in some simple fashion, after having made holes with their bone awls. But stone and clay whorls found in the later Neolithic deposit at Knossos show that they had learned to spin, and, probably, therefore, to weave before the beginning of the Minoan Age. Women's dress became more and more elaborate, until it reached an astonishingly modern standard in the fifteenth century before Christ. Careful cutting and fitting, fine sewing, and exquisite embroidery were called into play. We learn the results from the frescoes and figurines; we find the lost needles and bodkins buried in Minoan houses. To quote Mrs. Williams in her appendix to *Gournia*:

" Frescoes and the faience statuettes from Knossos exhibit an elaborate, tight-fitting bodice, laced in front into a small waist, with short sleeves, sometimes puffed, and a very low, open neck. The appearance is strikingly like that of a modern peasant bodice, worn without a chemisette. The waist was confined by a broad belt. Fashion favoured bell-shaped skirts, the style of which is varied by plaited ruffles and straight bands, or by diagonal flounces and bands, while often the skirt is flounced from top to bottom with ruffles of varying widths and colours. Long waving tresses, twists, and coquettish curls, that might be the work of a Parisian *coiffeur de dames*, were affected by the beauties of the Knossos court." Lady Evans, describing the dress of " the Snake Goddess and her votary," faience figures from Knossos, says, " The whole costume seems to consist of garments carefully sewn, and fitted to the shape, without any trace of flowing draperies. . . . The lines adopted are those considered ideal by the modern corset-maker rather than those of the sculptor."

But even in the days of greatest luxury Minoan men were far from self-indulgent in their clothing, save on ceremonial occasions. In almost all representations of them, the upper part of the body is bare. Often only a clout was worn, in some cases short drawers or a loin cloth. Buskins and puttees were common, and a thick belt that accentuated the slender waist and held the dagger. A votive dress of the Snake Goddess has a clump of crocuses charmingly embroidered on the front panel, and the Cup-bearer's loin cloth is richly wrought with a four-petal design. Men wore feathered head-

dresses and turbans on special occasions, and women had hats of truly modern proportions.

Necklaces and armlets were as popular with men as with women. The Cup-bearer of Knossos wears his signet in a thin bracelet at his wrist, and two broad bands on his upper arm; the Dove Goddess, from the late shrine at Knossos, follows the same practice. Beads of steatite, amethyst, carnelian, rock crystal, and blue paste or *kyanos*, and small pendants in the shape of bulls, lions, ducks, other animals, flowers, and human beings, have been recovered in the sieves through which every ounce of excavated soil is sifted when suspected of containing such objects. As Mrs. Williams remarks in conclusion, "So far as can be judged from our present knowledge of the subject, although the dress of Minoan men and women was not graceful, it was elaborate in detail, and not lacking in character and style."

The Neolithic Cretans who had their settlement at Knossos lived in wattle and daub huts like those in the *terramare* district of Northern Italy; but the Stone Age people of Magasa, although more backward in other respects, built with stone when they needed to eke out the shelter of their cave. The progressive steps are missing, but even in the Second Early Minoan period men were already using a variety of materials, and were constructing well-finished houses that have resisted destruction for forty-five hundred years. The methods they employed were followed by many generations of Minoans with only slight changes. On lower walls of rubble were reared upper walls of large sun-baked bricks, and brick was used also

for partitions, on a stone foundation. Upright posts, lengthwise beams, and transverse branches were inserted to strengthen the masonry; and plaster gave a smooth surface to walls of all kinds. Floors were of flagstones, cobbles, cement, or beaten earth. For ceilings they used reeds daubed with plaster, as in many a Cretan cottage to-day, and roofs were flat, of the terrace form still popular in the East.

At first the country folk used small stones unbroken and untrimmed, set in relatively large masses of clay, and gave the needed firmness to their walls by an excellent quality of plaster. In time larger stones were set up; the clay mortar became inconspicuous, and small stones were wedged into the interstices of the walls. But true 'Cyclopean' masonry comes late in the history of Minoan architecture, and one wonders whether its adoption was due to increased mechanical skill among the people or to some social change that placed the labour of the many at the bidding of the few. The best building was done in the Middle Minoan Period, and architecture began to lose some of its integrity before the other arts showed any symptoms of decline.

As in women's dress, so in house-planning, Minoan style was modern rather than classical. The burghers of Gournia were guided by convenience, not by a fixed plan. Houses built on a slope had basement rooms connecting with a back-door on the down-hill side, while the entrance to the main floor was by a doorway flush with the street. Crossing the stone threshold one found himself in a paved antechamber with several doors

leading to the ground-floor rooms, and steps mounting to the second storey; to the cellar he might descend directly from the antechamber or from an inner room. Strong timbers were needed for the support of the second storeys, for even upper floors were sometimes of stone, as in many modern Italian houses. Windows are represented in the faience copies of houses found at Knossos, and are painted red, as if to indicate the use of an "oiled and scarlet-tinted parchment" where we to-day employ glass. Dr. Evans even thinks that he can detect a window-curtain of light material—a touch that at once puts us on friendly and intimate terms with the past.

Often the purpose of the various rooms can be guessed: one was a larder, in another stood the loom, here was a forge, and there a carpenter's bench. There is no trace of separation into men's and women's quarters except on palace sites. Whereas the ordinary citizen had six or eight rooms at his disposal, those a few feet higher on the social ladder could boast twice that number.

Probably the first leaders had dwellings hardly to be distinguished from other homes save in size. Distinct traces of the old manor-house of formless type survive in the small palace at Gournia, in spite of painstaking endeavours to follow the lead of Knossos and Phaestos in remodelling. The great palace sites take us from abodes of ordinary comfort and convenience into realms of luxury. Of the late Minoan buildings, not of the older structures buried beneath them, the traveller thinks, when he recalls the visits that introduced him to a new chapter of European history. Ten

years ago the boldest dared not imagine that in this island of the Mediterranean men had lived a life rich in satisfaction for the senses and the intelligence one thousand years before the Age of Pericles. "The Palace of Knossos," says its discoverer, "like the great Indian Palaces of the present day, was a town in itself." It stood four storeys high on the east side, and had a floor space of not less than five acres. "Companies of skilled craftsmen and artists lived within its walls." To-day it is a veritable maze of chambers, magazines, and courts, disposed in well-defined groups of apartments, on certain broad lines of symmetry, but in a rambling style wholly opposed to the classical. Finely-squared limestone, handsome blocks of gypsum, columns of cypress, brilliant wall-paintings contributed to the splendid appearance. The palace possessed two great courts, a theatral area, audience chambers, bath-rooms, and a drainage system not equalled in Europe between that day and the nineteenth century. Suitably secluded within this labyrinthine structure we find domestic apartments planned to please men and women of fastidious habits, exacting in their demand for ease and magnificence. As we shall describe the ruins of Knossos and Phaestos in a following chapter, only this general reference to them need be made here.

In trying to picture a Minoan interior, the Westerner must rid his mind of all the modern complexity of furnishings to which he is accustomed. The true Orient will teach him, although, strangely enough, when he seeks to imitate the East, he arrives at the opposite pole from Eastern

simplicity; he crowds into one room what the Oriental would have in twenty. Minoan rooms would certainly have seemed bare to our eyes. Stone benches and stone platforms that still exist might possibly induce repose if strewn with proper coverings. Wood, cloth, reeds, and skins are not preserved in Crete as in Egypt, hence a large gap in our inventory of house furniture that cannot be filled. Stools and chairs have vanished, but it is to be remembered that the throne of Knossos is a copy in stone of a wooden model, as Dr. Evans has demonstrated by reproducing its exact lines in walnut, and that the faience mosaic to be described later was set in the panels of a wooden chest, which must have been a truly magnificent piece of furniture. The richest decorations of Minoan rooms consisted in elaborate mural paintings between formal borders, of which we shall say more in our chapter on art. Low relief and painting were often combined to produce an effect like Sargent's Moses in the Public Library of Boston. In the bourgeois houses of Gournia the finish of the walls was usually a very light bluish grey, but we found a few precious bits of bright stucco, somewhat deeper in shade than the Pompeian red.

Round tables, lamps, and basins were turned out by the potter and stone-carver in a few simple forms, found alike in palace and cottage. The differences consist in employing a handsomer stone (often the false porphyry that is local) and carving it, or in painting the clay intended for royal use. To make them portable the round table tops and bowls were often distinct from their

standard, a solid column of stone, wood, or clay, with a spreading base. Another form of support was a hollow cylinder ('ring-stand'), into which any vessel could be fitted. Hand-lamps show steps in development from simple cups towards the well-known classical examples. We can imagine the picturesque scenes in the *megara* of the palaces when the larger lamps were alight—great bowls of oil with three and four wicks, on tall standards—sending a fitful glare through the columned chambers, and lighting up the gaily-coloured costumes of lords and ladies, listening to sea-tales or adventures of the bull-chase.

In storage rooms a great variety of jars and pitchers had their place: all the prehistoric forms for which archæologists use the classical names, *pithos*, *stamnos*, *amphora*, and *œnochœ*, and the modern German nickname, *Schnäbelkanne*. In many instances the prehistoric type foretells the classical, and the Minoan pithos differs little from the huge jars seen to-day in the wine and oil shops of portly Candiots. It cannot be said that we have yet a well-identified kitchen, and we may fairly infer that a good deal of cooking was done out of doors or in somewhat casual fashion over a few embers. The tripod kettle was certainly the favourite cooking vessel, and this was made to stand directly over a fire of sticks. But other forms of pots and saucepans suggest such arrangements for cooking as may be seen in the cottages of modern Cretans, a raised hearth built of stone and clay, coated with plaster, having recesses for faggots between ledges which support the pots, a device not unlike the Cornish 'fringle.' Scoops,

ladles, and tinder boxes were made in graceful shapes; plates may have been of wood, like the Japanese, for the shape is very rare among our finds, whereas bowls and cups are among the most frequent of all our discoveries. Many a room at Knossos, Phaestos, or Gournia has received the nickname *kapheneion* (coffee-house) from the workmen, because of the rouleaux of handleless cups it contained. A teacup form with handle is some what less common and more often decorated.

The variety of household vessels alone would prove that the prehistoric inhabitants of Crete were far removed from savagery or even barbarism, for such variety points to a discriminate adaptation of means to ends. One is tempted to neglect this ordinary and somewhat unattractive material, but the penalty of such neglect is to lose a background for our picture of the past. We must know the standard of living as well as the æsthetic principles or martial achievements of a race.

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III

INDUSTRIES AND COMMERCE

IN direct contrast to such peoples as the Assyrians, whose story is one long series of wars and plundering expeditions, the ancient Cretans, unlike their modern representatives, were a peaceful people, and made their conquests in arts, industries, and commerce.

Among industries evidenced by recent excavations in Crete, agriculture has left us no tools except, perhaps, bronze sickles. Minoans did with hand labour and perishable implements what we accomplish by machines. It is still possible on the mountain-sides, where the crop is scanty, to see men and women plucking the corn. But of farming and the yet older pursuit of grazing the earliest Cretan writing bears ample witness. Cattle, sheep, goats and pigs, the plough, the barred fence, milk vessels suspended from yokes, are among the oldest picture signs. Every site of a town has yielded stone mortars and querns for grinding corn; and the actual peas and barley grains—the housewife's store for the morrow that never came—have been discovered at the bottoms of many buried jars. That the fig-tree was known and cherished is proved by frequent representations, but the vine nowhere appears unless in one doubtful instance on a faience plaque. Olive oil

then as now was a staple article of diet, supplying the fat which northerners obtain from flesh foods. Vats for washing the oil have been found intact in Gournia houses. If English archæologists are right in their interpretation, a wonderful stone vase from Aghia Triadha shows a thanksgiving procession after harvest.

Even at the height of the Bronze Age many stone implements were in use : sling-stones, mace-heads, loom-weights, crucibles, mullers, polishers and hammers of many shapes and sizes. Most Cretan village homes, as to-day, had their looms —so much we may gather from the numerous loom-weights. Probably many more industries were domestic in that day than in this, but already several were differentiated, e.g. the potter's, carpenter's, and bronze-caster's. The finer tools were of course of bronze. A whole carpenter's kit lay concealed in a cranny of a Gournia house, left behind in the owner's hurried flight when the town was attacked and burned. He used saws long and short, heavy chisels for stone and light for wood, awls, nails, files, and axes much battered by use ; and, what is very important to note, they resemble in shape the tools of to-day so closely, that they furnish one of the strongest links between the first great civilization of Europe and our own. The relation between Europe and Egypt in this matter is much more distant, if it can be said to exist at all. From Aghia Triadha comes a huge saw like a lumberman's, perhaps used to cut great columns of cypress wood for the palace. Only a few giant trees large enough to furnish such logs remain to-day on the higher slopes of the White Mountains.

CRETE, FORERUNNER OF GREECE

The early appearance of bronze in a country and the question of its origin are always of great interest to archæologists, for if the discovery was indigenous, then it registered the opening of a great epoch; or, if it came from foreign parts, then we have a record of commerce, or possibly invasion. It is generally believed that Cretans obtained their first bronze by commerce; but they were sailors with their wits about them, and it was not long before they began to manufacture for themselves. That bronze was cast in rural towns, such as Gournia, is amply proved by the finding of scraps of bronze and slag, pure copper adhering to smelting vessels, a crucible and pot for carrying a charge of metal, and by numerous stone moulds, into which the molten metal was run for making knives, nails, awls, and chisels. On a headland about three miles east of this town are fragments of an ancient furnace, called figuratively by the peasants the 'Golden Furnace'; and some specimens of rock from an adjacent cliff have shown on analysis a low percentage of copper, not sufficient to induce modern enterprise, but evidently not neglected by the prehistoric inhabitants. The Gournia burghers used copper in an almost pure state when they needed metal that was malleable and flexible, as in the case of a large bowl hammered without seam; and narrow strips for mending, one of which was found tied in a bunch as we secure an odd bit of tape; but their tools and weapons were of bronze, containing as much as ten per cent alloy with copper. Two specimens of Gournia implements examined in American laboratories contained 9.6 and 10.45 per cent of

tin. The best products of the metal workers must be reserved for discussion under works of art.

There is one craft whose fabrics are of vastly greater relative importance to-day than when they were made. The potter little dreamed that the work of his hands would outlive the much more highly esteemed products of the armourer, cutler, and goldsmith, and would provide the safest series of signs to mark the passage of prehistoric time. On every Ægean site tens of thousands of potsherds are unearthed, washed, and carefully studied with reference to the exact position and depth where they were found, even when there is no prospect that they can be put together into their original shapes. The true sequence of forms and styles of decoration is at length determined for each site, and constitutes one of the excavator's chief contributions to the science of archæology. Each sequence now finds its proper place in a larger scheme, the history of Ægean ceramics, covering many centuries and more than one millennium. Thereafter if a new site yields a certain set of forms and designs, its position in this scheme of relative chronology can be immediately established. As the shape of palæolithic axe or neolithic celt enables the European archæologist to subdivide his culture periods, so—but with much greater certainty—the form, texture, design, and colour of Minoan potsherds make it possible for the Cretan archæologist to grade his discoveries.

In pre-Minoan times pots were made and polished by hand, and decorated, if at all, by incision, such as the humble housewife makes on the border of

her pie, or by rippling only, until the fashion of filling the incisions with chalk was introduced at Knossos. But the Minoan potter shared in the general progress that followed the incoming of metal; he learned to sift his clay fine, to use the rotating wheel in place of some ruder means of turning his vase, such as a movable plank or mat, and to bake in the oven instead of over a smoky hearth. A great step was taken with the actual painting of the clay. Dr. Mackenzie thinks this came about as a result of improved methods in baking; for the practice of filling incisions with chalk on the dark surface of the open-hearth pottery was no longer applicable to the light ground of the oven-baked ware. The problem was how to decorate a buff-coloured surface. This problem was solved in two ways—by covering the surface with a black body-paint, on which designs were drawn in white, orange, and red pigments, closely akin to the chalk of the incised pottery; and by sketching in paints on the buff surface itself. These two styles developed side by side, but not at equal pace. The light on dark style was long preferred for all finer wares, no doubt because its lustrous black ground imitated metal. But at the close of the Middle Minoan Period pottery began to gain independence, and the greater possibilities of the dark on light style in expressing the spirit of naturalism that was invading all the arts won for it an enduring triumph.

It is readily understood that for one decorated vase a score of undecorated pots and kettles is unearthed. The potter moulded his clay into an extraordinary number of shapes to supply needs

for which we employ to-day, not earthenware alone, but also wood, glass, and metal; and in the course of his more serious work he made scores of diminutive vases, found on every Ægean site, which appear to be children's toys. They do not seem to be votive, for scarcely a house at Gournia was without them, and none are recorded from the shrines. Moreover, several of the shapes, e.g. tiny tripod kettles, are decidedly more appropriate for children's housekeeping than for religious offering. The subject of decoration on pottery will be dealt with in the chapter on art.

The Minoans did not confine their energies to their island home. The sea called them, and trade was the chief factor in their development.

We cannot be sure that their first imports, such as obsidian from Melos, were brought in their own boats, but we know that Neolithic peoples did venture on the sea, and therefore must admit the possibility. On an Egyptian relief of the Sixth Dynasty (*c.* 2500 B.C.) Müller sees Ægeans bringing tin into Egypt. If Ægeans, then probably Cretans, since we know they were already in the lead. Müller believes the tin came from the mountains of Central Europe, but Mrs. Hawes thinks it may have come from a yet more distant region, Khorassan, reached by long caravan routes across Anatolia, or by shorter ones from the end of the Black Sea.

Dr. Evans claims that a bowl found at Knossos was made in Egypt at about the beginning of the Fourth Dynasty, of liparite carried thither from the Æolian islands. The Cretans appear, therefore, in the guise of peaceful traders so early as the

Old Kingdom, furnishing raw material to Egypt and receiving, in one instance at least, the finished product in return. No name that can be assigned to them has yet been discovered in the texts of the Old Kingdom, and we must suppose that they were included among the *Hanebu* 'folk of the papyrus lands,' a term that probably connoted to Egyptians, the inhabitants of the northern Delta and *unlocalized* foreigners whom they knew only through the Delta.

Contact between Crete and Egypt was closest and friendliest during the first half of the fifteenth century before Christ, i.e. the Palace Period of Knossos or Second Late Minoan, contemporary with Thothmes III and Queen Hatshepsut at Thebes. Wall-paintings, in important Theban tombs of these reigns, depict men bearing Cretan vases, whose figures and dress are unmistakably Minoan and unfamiliar to Egyptians. In the reigns immediately following, however, Cretan vases are represented in the hands of bearded Asiatics. How shall we explain the change? In the older tombs the bearers are entitled 'Princes of the Isles in the Midst of the Great Green Sea,' and one of them is called a 'Prince of the Keftiu.' The identification of *Keftiu* with the maritime empire of Knossos is now generally accepted. It appears that the Minoans assumed a national identity as 'Keftiu' in the minds of Egyptians during the long reign of Thothmes III. At about the close of his reign Knossos fell, and the Keftian state could no longer send envoys and presents to Egyptian officials. Minoan art products still in vogue were imitated and diffused, chiefly through the hands of the

Phœnicians, who succeeded to the merchant marine of the Mediterranean. A very picturesque representation of this Phœnician trade in Minoan wares existed until lately in a Theban tomb of the time of Amenophis III (*c.* 1380 B.C.). Hall tells us "Phœnician ships which took part in this trade are mentioned in an Egyptian inscription as 'Keftiu' ships, i.e. ships which go to Keftiu, like British 'East Indiamen.'" The mantle of the Minoans had fallen on the shoulders of the Phœnicians, who have for so long paraded it as their own.

Crete itself has given us some interesting pictures of her boats. On an Early Minoan steatite seal-stone we see a boat provided with both sails and oars, and two crescent moons above the mast signify that the owner of the seal dared to venture on a two months' voyage. On a wonderful gold ring found by Mr. Seager on the islet of Mokhlos is engraved the departure of a ship, sailing forth—and this is important—from a shrine of the Great Minoan Goddess. Again, on a seal-impression from the Little Palace at Knossos, a noble horse of enormous size is being transported on a one-masted boat, driven by Minoan oarsmen seated beneath an awning. According to Dr. Evans this represents the coming of the thoroughbred horse into Crete in the earlier part of the Late Minoan Period; but the fact that a horse is engraved on an Early Minoan seal-stone belonging to the writers, shows that the animal was known to the Cretans many centuries earlier.

That Minoans were a maritime sea-faring people is further attested by many other finds: bronze fish-hooks of precisely the same shape as our

iron ones, lead sinkers for lines, net-weights, vases with marine designs, e.g. coral, seaweed, the octopus, nautilus, and murex, and above all by the proximity to the sea of all important Minoan sites. For many reasons, of which a few only can be mentioned here, the opinion is fast gaining ground that the whole sea-borne trade between Europe, Asia, and Africa in the middle of the second millennium before Christ was under their control.

The tradition of this Cretan supremacy has come down to us from the two greatest of Greek historians. Herodotus speaks of Minos the Knossian as one who had the mastery of the Ægean, in days before "that which is called the generation of man." Thucydides tells us that Minos was the first to whom tradition ascribed a navy. "He made himself master of a great part of what is now termed the Hellenic Sea; he conquered the Cyclades. . . . Lastly, it was he who from a natural desire to protect his growing revenues, sought, as far as he was able, to clear the sea of pirates."

IV

THE SITES: KNOSSOS

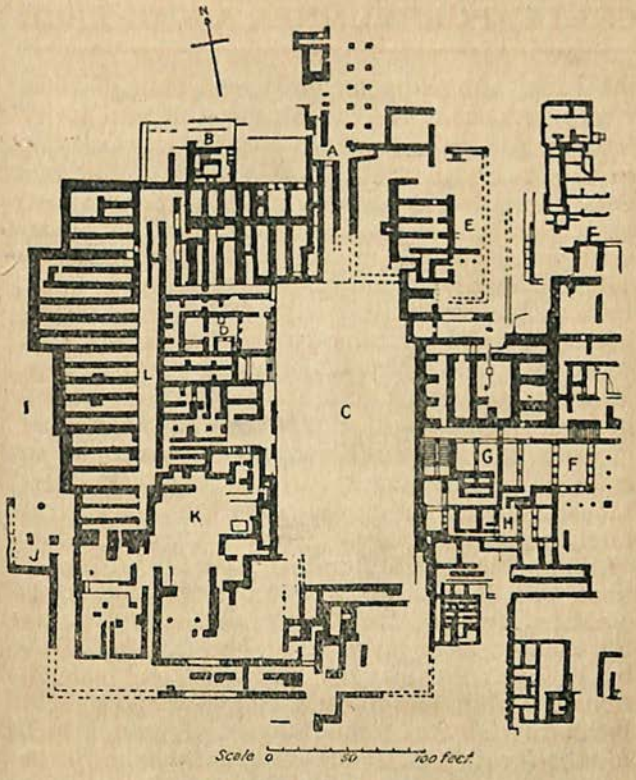
THE traveller will do well to visit the Museum at Candia, in order to fix his attention on the chief objects and learn their provenance before venturing out to Knossos; but the reader who cannot see with his own eyes the works of art, will avoid confusion by getting a running acquaintance with the different sites and their characteristics, before studying in detail what they have yielded.

Of all Minoan sites, Knossos is the most famous and the most accessible. As early as the sixties, Mr. Stillman, the American consul at Canea, had observed on the knoll south of the Roman theatre at Knossos, parts of more ancient walls bearing unfamiliar signs; but it was not until thirty years later that Dr. Evans, impressed with the possibilities, bought a piece of land at Knossos and followed up this purchase with a claim for the prehistoric site.

The palace, for such it is, lies about three and a half miles by road south of Candia. Issuing from the city by the southern gate, the traveller leaves behind the massive walls, the still complete bastions and counterscarps of the Venetian city, which endured the longest siege in history. To the left is a Mussulman cemetery, first occupied by

the Turks who fell in the great siege of 1648–1669. Rising suddenly from the plain, but five miles distant, is the cone of Mount Juktas, where, according to Cretan legend, Zeus was buried! About two miles along the road is a by-path leading eastward to a small plateau called Isopata, or, in longer form, 'the Plateau of St. Nicholas,' whence a noble view is obtained over city, plain, and sea. Here a surprise awaits one, for in the heart of this hill lies a tomb of princely dimensions and construction. No British general, Turkish bey, Venetian noble, or Greek archon was ever buried in such a grave. Farther back the mind must grope to a day when Crete was the centre of an empire, commanding the trade of the Mediterranean, and cultivating manual arts with a success rarely equalled.

About thirty-four hundred years have passed since this burial chamber was completed. It is oblong (8 m. by 6½ m.) with vertical ends; the top courses have fallen in or been carried away by peasants seeking building-stone, yet enough remains of the sides to show that they had a slight inclination inward from the ground level, which increased with the height, bringing the apex of the vault about eight metres above the floor, so that the height and length of the chamber were equal. The tomb has been excavated from above, but the original entrance was from the east side by a straight passage and fore-hall; the passage (*dromos*) was cut out of soft rock, and slants gradually down to the level of the tomb. Chamber and fore-hall are of large squared blocks of limestone.



PALACE OF KNOSSOS.

(From *Annual of the British School at Athens.*)

A North Gate.
B Northern Bath.
C Central Court.
D Throne Room.
E Industrial Quarter.
F Hall of the Double-Axes.
G Hall of the Colonnades.
H Queen's Megaron
I West Court.
J South-west Portico.
K Inner Court.
L Corridor of the Magazines

Although the structure displays no such feats of architecture as are seen in the Pyramids of Egypt and the great Bee-hive tombs of Greece (the latter furnish the closest parallel, but with important differences), yet it does impress one with the care and ability of the builders, and the importance of the person or persons for whom the tomb was built. A curious feature is seen in the two opposite recesses flanking the fore-hall. These were sepulchral niches filled with débris of very late Minoan times. The principal chamber appears to have been designed for an august personage who was buried in a cist-grave near the north-east corner. Centuries before Dr. Evans discovered it, the tomb was rifled of the gifts and treasures which it was customary to place with the dead—the gold-mounted sword and jewellery that lay beside or on the body, and the bronze vessels and other objects that stood on the covering slabs; but enough fragments were found to prove the magnificence of the original gifts and to heighten the impression that the knoll of Isopata once covered a king.

To reach Knossos one need not return to the modern road, for Isopata is within a stone's throw of the ancient way which led from the Minoan port at the mouth of the river to the prehistoric capital three and a half miles inland. The usual approach by the direct road from Candia is disappointing. The knoll on which the palace stands, though steep enough on the river side and of significance from the north, is scarcely discernible from the high-road on the west. The skeleton tower built by Dr. Evans, in order to view his excavations as a

whole, does not enhance the picturesqueness of the site. Nevertheless, any visitor endowed with a moderate amount of constructive imagination and fortified by a little reading or by observation in the museum at Candia, will soon recognize that Knossos is the most important excavation of the new century.

Keeping in the direction of the harbour road, the traveller, pursuing a field path, skirts the deep graves of Zafer Papoura and passes over many an undiscovered Minoan treasure before he reaches the great North Gate of the palace. Every year yields fresh finds in the neighbourhood of the ancient highway. Only this season, 1909, Dr. Evans laid bare another tomb a quarter of a mile from Isopata, similar to the one we have described, but with a pavilion roof. This also had been rifled, but a handsome solid gold ring with an engraving of dancing ladies and a fine chalcedony seal, with a great dog portrayed on it, testified to the wealth of the occupant. Last year a tomb of the period following the Bronze Age was discovered close at hand, containing no less than seventy vases, many of them of considerable size, which are now in the museum at the Villa Ariadne, Dr. Evans' house at Knossos.

When at last the great North Gate (A) is reached, one must bear in mind that the remains of several building epochs confront him. In the main it is the last palace he sees, for the earlier palace, dating from before 2000 B.C., has been obliterated to a great extent by the more splendid edifice which was built *c.* 1800 B.C., and remodelled some three hundred years later. Yet at scores of points the

older structures have been revealed by excavation, to the immeasurable gain of archæology if to the serious confusion of visitors.

In contrast with mediæval Candia, and with prehistoric Troy, Tiryns, Mycenæ, and Athens, the ancient capital of Crete had no wall of fortification. In this respect, as in many others, Knossos was modern in spirit. Trusting throughout a long period of its history to the immunity of isolation, and later to an actual supremacy at sea, the Minoan capital, like London and Washington, preferred to run the risk of capture, rather than to cramp its life within walls. And, like London and Washington, it was fired by enemies and rebuilt with greater splendour and with no serious interruption of its prosperity; until at last its own vitality was spent and there could be no recovery from an attack in which the enemy within the gates combined with the old foe from the North to wreck the Minoan State.

Notwithstanding the absence of general fortifications, considerable care was expended in strengthening the North Gate, which was the most accessible from the sea. A guard-house stands just without the Gate, dominating the point where roads from city and seaport meet. Sentry-boxes and flanking bastions command the narrow stepped gangway that ascends to the Central Court. The masonry on both sides of the ascent is especially massive and careful, of large blocks, well squared and neatly jointed. Gypsum, so common elsewhere in the Palace, is absent here, being too soft for such use. Solid limestone alone is employed, and the quality is

the best in the island, although still many grades inferior to Greek building stone.

Nowhere on the site does the stone work surpass that of the Northern Bath (B), a chamber about thirty yards west of the Gate. It is built with closely fitted blocks of limestone, faced with gypsum slabs 2 m. high and 1½ m. broad. The stratification of débris and walls overlying this chamber, furnished perfect evidence that it was built at least five hundred years before the Palace took its final form. Likeness of structure indicates that the North Gate was built at the same early time (about 2100 B.C.), but whereas the Bath was buried in débris before the erection of the royal edifice whose ruins now astonish us, the Gate was never abandoned but was incorporated into the later Palace and continued in use until the fall of Knossos.

A rather grim feature of the Northern Entrance is the proximity of three walled pits nearly 25 feet deep, which Dr. Evans suggests may have been *oubliettes* for state prisoners. In contrast to this, is his more agreeable conjecture that the fine masonry east of the Entrance supported three terraces with small garden plots of palms and flowering shrubs, whence dwellers in the palace looked out on the river valley sloping towards the sea and watched the busy life of the harbour road. He is justified in his picture by the example of a terrace at Phaestos in a similar position, and by scenes which were painted in fresco on the walls of the palace at Knossos, the so-called Miniature Frescoes.

The spacious Central Court (C) occupied an area

of about twenty thousand square feet. This great piazza was paved but never covered in. On all sides it is enclosed by the palace; a narrow frame of buildings on the north and south, a wide erection on the east and west. The west wing of the palace was given over to business; the east wing, welcoming the morning sun and breeze but protected from the afternoon heat, made a pleasant dwelling for royal personages and their dependants.

Ambassadors and persons with important business to transact were admitted by the North Gate to the Central Court and conducted to the audience chamber, which Dr. Evans has named the Throne Room (D). This is a part of the west wing, but it communicates with the Central Court alone. Strangers could wash off the dust of their journey in a shallow tank that forms part of the room, and could rest from their fatigue in a dark cubicle adjoining. On the west wall of the audience chamber winged dragons faced each other, one on either side of the cubicle door, as if to guard the repose of those who slept within. The other walls were painted with river scenes, reeds, grasses, and gently moving water, suggesting tranquillity. Against the north wall stands a simple dignified throne made of gypsum, which one of the writers had the good fortune to see emerging from its grave of many centuries—the oldest throne in Europe. It is of gypsum, and below the seat is carved " a double moulded arch springing from flat fluted pilasters . . . the lower part of the mouldings of the arch on either side were, by a strange anticipation, of later

Gothic, adorned with bud-like crockets." On either side of it are gypsum benches for the councillors, and another, between columns of cypress, opposite the throne, probably accommodated legates or petitioners. Persons interested in seeing and hearing the proceedings could stand within the shady portico that gives entrance from the Central Court to the Throne Room.

East of the North Gate were the stables and across the Court from the Throne Room stood a hall, possibly for the entertainment of strangers, and the industrial quarters (E) of the palace, occupying the north-east corner of the vast building. Here lived the colonies of artisans who were constantly employed in embellishing the edifice and in satisfying the needs of its many inhabitants. Rustic pottery of a conservative type was manufactured for this working population—high-shouldered jars with short necks and blunt spouts, meagrely decorated, often by merely splashing paint on the shoulder and allowing it to trickle down the sides in fantastic lines. Typical examples of this decoration are two huge jars which remain *in situ* within the north-east precincts of the palace, in connection with an elaborate system for the refining of oil. No doubt the olives were pressed in the groves, but the crude oil was brought to be washed and stored by the palace servants, who used for the purpose vats and troughs which have survived the centuries. One of the jars stands nearly 7 feet high with a girth of 15 feet. Evidently it ranked as an achievement, for in addition to the painted trickle ornament and an over-generous supply of handles, it has a moulded

decoration, imitating in clay the ropes by which such vessels were bound and lifted.

Pottery was one of the humblest arts practised in the palace. Frescoes and mural reliefs were of course also executed on the spot. Stone-cutters developed great skill in architectural carving and in the fabrication of stone vases. Two of these were discovered in the workroom where they were being made at the moment of the attack on Knossos. The smaller one, about 14 inches high, was only roughed-out, but the other twice as large was finished—the "King of Stone Vases"—with three handles, spiral bosses, and metallic inlays probably of gold. Eleven men were needed to transport it.

In other chambers were bits of gold-leaf, unfinished beads, and fragments of ivory, salvage from the benches of inlayers, goldsmiths, and gem-engravers. A royal faience factory turned out masterpieces in 'porcelain.' Delicate clay moulds, far too fragile for casting metals, are relics of this industry which came to richer fruition in Crete than in Egypt, the land of its origin. All discussion of these arts is deferred to a later chapter; here we are only concerned with the fact of their having been domiciled in certain parts of the Knossian palace that are now sadly ruined.

Within this bee-hive of industry an army of scribes must have been employed, for thousands of archives, alas! undecipherable, have been unearthed by the excavators. One chamber seems in fact to have been a schoolroom, for it is provided with suitable stone benches on all four sides, and at both ends of the seat that Dr. Evans

assigns to the master stand stucco bowls hollowed in low pillars, one the height for a man and the other for a child, " for keeping moist the clay lumps out of which were moulded the tablets that serve as vehicle for the linear script." The schoolroom occupied middle ground between the section of the palace given over to the manual arts and the quarter set apart as a royal abode.

No doubt exists about the domestic character of the great Halls in the south-east quarter, which in some respects form the most interesting feature of the entire palace. Minoan builders cut away the hill at this point, to utilize to the full a situation open to favourable winds and the morning sun, but sheltered in other directions, and remote from both the hubbub of the West Court, where supplies were received, and the public business of the precinct about the North Entrance. Having secured a partly artificial terrace more than 25 feet below the level of the Central Court, they reared a dwelling of at least four storeys, with back against the hill and easy access to the Court from the upper apartments.

As showing the Minoan type of *megaron*, these Halls deserve the most careful investigation. There are three, called by their discoverer the Hall of the Double-axes (F), the Hall of the Colonnades (G), and the Queen's Megaron (H). The men's outer hall takes its name from the royal emblem carved on its walls; the men's inner hall, behind the outer, has a colonnade and a columnar staircase well-preserved. The Queen's Megaron seems to be justified in its title by certain unique features of arrangement, by a dado of dancing girls, and

by the occurrence, elsewhere unknown, of a distaff as a masonry mark on the wall of a dependent Court. The Hall of the Double-axes with its two-fold portico, occupies an area of more than 250 square metres. Naught remains of the portico but two rows of round stone bases, a few inches high, intended to support wooden columns, three on the east and three on the south side of a rectangle. Solid masonry screened the royal idlers in this portico from the rude gaze of the workers domiciled to the north of them. They were free to enjoy tranquilly their lovely vista of river-glade, where now a Turkish country-house lies embedded in a tangle of verdure. And southwards their view embraced the area fronting on the women's apartments, where once sweet gardens may have bloomed. The Hall "has the appearance of a large reception room, the post of honour in which, perhaps marked by a moveable throne, was probably against the north wall, facing the middle of the southern portico," and approached from the porticoes and the west part of the hall by eleven openings between square pillars.

Enough remains of this structure to show how ingenious the Minoans were in combining wood and plaster over rubble, in such a way as to make a fair appearance; their door-frames were regularly panelled in this way—jambs of plaster between corner-posts of wood; and timbers were used to strengthen or define even ashlar work. The western section of the floor is cemented, whereas the rest is composed of jointed limestone with only a surface-coating of plaster. This means that the western part was a light-well exposed to

downpours of rain. It has a raised border of limestone on which stand two column bases, indicating the form of support provided for the upper floor. By a well-preserved window in the north wall, light from the shaft reaches an otherwise dark stairway enclosed within a narrow passage. This stairway led to rooms above the Hall of the Double-axes, whose disposition was like the plan of the apartments below.

Above the Hall of the Colonnades, Dr. Evans has actually preserved the original floor by having his men insert a strong iron underpinning, when they mined beneath it. As in many Italian houses to-day, the upper floor is formed of stone slabs; columns in this storey stood above columns below. The Hall of the Colonnades differs from the Hall of the Double-axes in being much smaller and simpler and in having columns instead of a wall between it and the passage north. This open passage is really a part of the scheme for the columnar staircase that ascends west of the Hall of the Colonnades in five flights communicating with the Central Court. Only a low balustrade on which are ranged short, thick columns, intervenes between this Quadruple Staircase and the light-shaft. Ambitious, but thoroughly faithful, restorations have been effected in this great hall and staircase, so that even the unimaginative can picture the architectural setting of brilliant fêtes in bygone days.

As Dr. Evans says: "To a height of over twenty feet there rise before us the grand staircase and columnar hall of approach, practically unchanged since they were traversed some three

and a half millenniums back by kings and queens of Minos' stock, on their way from the scenes of their public and sacerdotal functions in the west wing of the palace to the more private quarters of the Royal Household."

V

THE SITES: KNOSSOS (*continued*)

FROM the princes' apartments a narrow passage, black as night, connected the Hall of the Double-axes with an important suite of apartments south, which Dr. Evans has assigned to the ladies of the Royal Household. He calls this the Dog's Leg Corridor because of its crookedness, and remarks that "this double turn greatly enhanced the privacy of the room beyond." Again he thinks that it can be shown that access to this chamber from out-of-doors was "controlled by a strict system of guardianship and surveillance."

Whether there be truth or no in such conjectures, it is certain that the room approached by these dark tortuous ways was one of special beauty and charm. The plan is exceedingly simple, a long narrow chamber of two parts, separated by a raised stylobate, supporting narrow pillars with a stone bench on either side. Each part of the chamber had its light-well, one south and one east. The benches were of comfortable height and depth, and their "moulded stucco surface" was doubtless covered with cushions. Here ladies could sit conversing, perhaps also executing the lovely embroideries we know they wore. That

they might enjoy a sense of space and freedom even in retirement, art brought nature within their walls. A fresco bordering the eastern light-well depicted fishes playing in the sea; their swift movements are indicated by showers of sparkling drops flung across the disturbed water. A fragment of fresco from the other light-shaft gives a hint of forest life—a bird of gorgeous plumage amid luxuriant verdure. Dr. Evans has pointed out that Romans of the Empire favoured a similar use of painting, whereby panels decorated with out-of-door scenes gave to an interior the illusion of perspective. Mention has already been made of the fresco of the Dancing Girls which covered the north wall of the Queen's Megaron. Their costume is gay and quaint—an open, tight-sleeved bodice over a diaphanous chemise and a somewhat scant skirt. In a line they moved, with tresses flying, joining out-stretched hands, and following no doubt some ancient mode, in which there seems to have been more action than Cretan women would approve to-day. Dr. Evans suggests that figures such as this surviving on the palace walls, even in their ruined state, may lie at the root of the Homeric passage describing the most famous work of Dædalus' art at Knossos—the 'Choros of Ariadne.'

Near the north-west corner of the room, a door opens into a bath. There is not the usual descent of two or three steps to the level of the cemented floor, but this is the only departure from the normal type. The other characteristic features are all present: a portion of the room, about two-thirds of it, reserved for the bath itself, has a

floor of pozzuolan cement and is shut off from the rest by a stone balustrade, save at the point farthest from the outer door; on the end of the balustrade stood a column. Thus a Minoan bath was not for immersion, but rather such a place as we prepare for a standing shower-bath. Terra-cotta tubs were available—a large painted one was found close at hand—and the arrangements allowed a generous supply of water to be poured over the bather. It was thought fitting to decorate this room with a specially fine fresco of formal design.

Behind the bath lie other chambers reached by a narrow passage from the south-west corner of the *megaron*. One of these is a small court, where spinning may have been done, for the distaff is carved on many blocks built into its walls. In another stands an oblong platform of rubble, covered with plaster; this is the Room of the Plaster Couch in Dr. Evans' nomenclature, and he attaches a special importance to the size and seclusion of this apartment as befitting royal occupants. Directly above this is the spacious Room of the Stone Bench. There is no special divergence from ground-floor construction; the same stone floors, panelled door frames, and stone seats testify to the solidity of the building that supported such weights.

A most surprising feature of Knossian architecture is revealed in this part of the palace, a fully developed drainage system, superior to any known in Europe between that day and the last century. Two closets of almost modern type, one on the upper and one on the ground floor, are connected

with an effective service of drain pipes. These could be properly flushed and a man-trap was provided for the inspection of the large drain, which runs beneath the southern light-well of the Queen's Megaron and is joined by a second drain for rain water, at a point south of the portico of the Hall of the Double-axes. We may mention here that hydraulic science is also displayed in a runnel bordering the steps of the Eastern Bastion, which was cleverly constructed to govern automatically the rapidity of the flow of water.

Archives and objects of value, not primarily for feminine use, came to light in two small rooms belonging to the so-called women's domain. Were they deposited there because of the special security of the place, or because of some tradition based on matriarchy? This question with many others must remain unanswered until we can read the script. Meanwhile we may enjoy the precious residuum of treasure; above all, two small ivory figures of nude youths leaping, which display a "life, freedom, *élan*, nothing short of marvellous."

Before leaving the south-east quarter of the palace, let us note at two points evidence establishing the fact that some parts of the site were re-occupied after the general destruction of the palace. At the first point a number of large jars of degenerate form and design stand on a stratum of earth overlying pottery of the usual palace style. This expression 'palace style,' it should be explained, is limited to fashions in vogue just before the fall of Knossos, *c.* 1450 B.C. These ugly jars are associated with slip-shod repairs in masonry, whereby a fraction of the ruined building

was rendered again habitable. At the other point there remains a pathetic relic of the aftermath, a shrine to the Mother Goddess, piously tended until the final overthrow, *c.* 1375 B.C. Dr. Evans has saved the shrine with its contents almost intact. It is a small room or cell, smaller even than the tiny chapels that dot the hills of Crete to-day—a place where one or two might pray, leave an offering, and enjoy community with the divinity rudely represented on the altar. To us the small clay figures of the Goddess are grotesque ; but what stranger to the Christian religion would find beauty or dignity in the chromos cherished by thousands at the present time ? In this late Minoan shrine at Knossos, one-third of the space was for the worshipper, another third for his gifts, the last third for the Goddess. Three crude images in the form of a woman occupy the place of honour on the low altar. Their arms are uplifted or crossed over the breast. Dr. Evans thinks that one is a goddess, distinguished from her votaries by being semi-anthropomorphic, the body rising from a clay cylinder which looks like a survival from the columnar form of the earlier 'baetylic' stones; but other scholars consider the cylinder to be a crude convention for the bell-skirt. A dove rests on the head of the goddess, and there is also a clay statuette of a male votary, holding out a dove as if to offer it to the goddess. Stucco 'horns of consecration' with the double-axe rising between them, stood on the altar beside the images. Gifts were ranged on a low platform before them: a three-legged table of offering, several stone lamps, and small stone bowls

for holding incense or corn and other fruits of the earth. No arrangements could be simpler, and it would be unsafe to draw any very definite conclusions from them, but we have other proofs that Minoan religion was remarkably free from debasing fear, and paid its utmost devotion to the kindly mysteries of Mother Earth.

Our rapid survey of the eastern half of the palace is now complete, and we turn to the West Wing, where supplies and possibly payments of tribute were delivered and stored. These were not admitted by the North Gate to the Central Court, but were brought to a large paved court on the west (I), and were probably examined and weighed within a small outstanding portico or porter's lodge (J), before they were received at the south-western entrance of the palace. This entrance communicated somewhat indirectly with an important system of magazines or store-rooms.

An idea of the character of the West Court is gained from its background, the outer west wall of the palace. This has a projecting base, whereon the peasants and humbler merchants could sit dozing, with one eye upon their merchandise and pack-animals. During the long morning hours when traffic was busiest, this seat was always in shade—a pleasant refuge from the sun's rays that beat so fiercely on the open court. The wall above the seat bore splendid decorations, of which interesting fragments remain. These include parts of an ornamental border, the façade of a shrine, and a spirited life-size figure of a bull, a conspicuous representation of the royal, sacred, and heraldic beast, as significant to a Minoan

populace as is the White Elephant to the Siamese. Farther south on that part of the west wall which is opposite the inspector's portico, artists had painted a procession of men and women, advancing toward the palace entrance; but time has destroyed all of this composition except the brown feet of the men and the white feet of the women, with an inch or two of their rich robes.

The same theme was continued in a passage within the entrance, and the ruin of this portion of the fresco was fortunately less complete. One figure has been recovered in two-thirds its length from the dust in which its shattered fragments lay. This is the famous Cup-bearer of Knossos, the most precious possession of the Museum at Candia. No one who has seen this portrait of a youth will doubt that the Minoan artist was on the right path, the path followed later by Polygnotus and by all artists filled with the Greek love of beauty and distinction. The painter was determined that all who ever saw his picture should share his admiration for the young Minoan. Dr. Michaelis says that the fine profile shows a life and perfection not met with again before the great outburst of Greek art in the time of the Persian wars. The youth advances proudly, conscious of his own dignity and of the value of the object he bears—a splendid gold and silver vase of funnel shape, like those carried by chieftains in Egyptian paintings. A wave-line in the background suggests that he came as an envoy from another of 'The Isles in the Midst of the Great Green Sea,' but his features and costume are identical with those

of Bronze Age Cretans, and his right to Minoan kinship and alliance cannot be gainsaid.

The West Wing of the palace presents some puzzling problems. Dr. Evans' idea that an inner court (K) and the Rooms of the Double-axe Columns had a special sanctity should be mentioned, although there are, we believe, some valid objections to it. The double-axes are carved thirty times on two square pillars in adjoining rooms, and it is not surprising that they excited great interest in the first season's excavations; but since then the same sign has been found in all parts of the palaces of Knossos and Phaestos, and even scratched on the outer wall of the small palace at Gournia, that is, in many places which cannot have a religious significance. We are not even convinced by the discovery of the precious wreckage from an older shrine, gathered into cists below the floor of a room close to the chamber of the Double-axe Columns, for the room was a depository only.

The main feature of the West Wing is a great corridor (L) about 200 feet long and 11½ feet broad, running north and south, and flanked by twenty long narrow magazines on the west side. These store-rooms are still full of tall jars, large and numerous enough to hide the Forty Thieves; and one suffers a sharp pang of unsatisfied curiosity, when peering into the empty treasure cists carefully built beneath their floors. Above this entire section there once extended large apartments, whose plan can be partly determined by the position of supports for upper walls and columns. Dr. Evans supposes them to have been halls of state, the most magnificent in the palace, and

certainly some bits of decoration that have fallen from them are very rich and curious. Two minor staircases leading to them still exist, one in the Corridor of the Magazines, the other just south of the Throne Room, from the Central Court; but the principal approach must have been from the south-west corner of the palace, now sadly ruined.

Only recently have been discovered some large and important houses of the Palace Period, which encroached on Middle Minoan corridors of the south-western section and curtailed the Later Palace extensions at this point. This seems a little strange when we remember that the Later Palace in all other directions went beyond the bounds of the Earlier. Was this encroachment permitted to powerful lords who had supported the destroyer of the Earlier Palace, possibly the ruler of Phaestos?

In this brief description of the palace, little has been said on the subject of the different epochs in order to avoid confusion. The chief chronological evidence has been obtained from deep pits sunk in the West Court, the Central Court, and the area south of the palace. Above the last Neolithic settlement traces of a few buildings belonging to the Early Minoan period have been found, and the opinion is growing that there probably existed a royal dwelling, prior even to the so-called First or Earlier Palace. The latter has left much as witness to-day and was an extensive structure; attacked and burned at the close of the Second Middle Minoan period, possibly by the rival ruler of Phaestos, it rose again after a

short interval. Once more it suffered, although not so severely, and was remodelled on a grander scale than ever at the opening of the Second Late Minoan period; this is the structure chiefly in evidence to-day. This great and magnificent palace had a shorter life than any other, for with the close of this period it fell to the destroyer. There is, as Dr. Evans has said, 'a touch of Herculaneum and Pompeii' about the way in which this era of splendour ended at Knossos. The catastrophe came suddenly, interrupting the sculptor at his work, the palace servants in their daily tasks; the pitcher was left unfilled, the jar unfinished. Fire swept through the courts and corridors of the huge building, melting bronze, carbonizing wood, beans, wheat, and seeds, recalcining the lime plaster, preserving by accidental baking the otherwise perishable tablets from which we may yet hope to read the record of a wonderful past. As a seat of the mighty the palace ceased to exist about 1450 B.C. South of the Quadruple Staircase and the Hall of the Double-axe the conflagration was not so intense as elsewhere, and there is abundant evidence that this and other quarters of the palace were again inhabited during the Third Late Minoan period, simultaneously with a partial and short-lived revival of prosperity in the country towns of Crete.

We regret in this rapid survey to have to pass over some important outlying buildings: the South-east House with its pillar room; the North-west Building with its rich hoard of bronze vessels and highly artistic pottery; and the Royal Villa in the river valley to the north-east, which is

the most comprehensible example of a fine house of the Palace Period, and in Dr. Evans' opinion may be considered the prototype of the King Archon's house at Athens, and therefore of the basilica of the Christian church.

From a point just without the North Gate, a small paved causeway runs in the direction of the north-west angle of the palace. Following this line we come to the Theatral Area, " a paved space about forty feet by thirty backed on two sides by tiers of steps. These steps, which are adjacent, and at right angles to each other, cannot have ever led into a building. They must have supplied standing room for rows of spectators, and the area between them must have been meant for some kind of show or sport. The tiers themselves, one of which is still eighteen steps high, a platform on which the most distinguished guests may have had seats, and a central bastion between the two tiers that may have acted as a royal box, could have accommodated between them from four to five hundred people." [1] A more grandiose example of the prehistoric theatre exists at Phaestos and a modest adaptation of the Knossos plan at Gournia. From this area the oldest paved road in Europe leads westward past numerous semi-official buildings (one of which is dubbed the Arsenal on account of the records of arrows it contained) to the Little Palace on the hill just below Dr. Evans' villa. The most striking fact learned from this part of the excavations is that spacious houses and a lesser palace built at the

[1] R. M. Burrows, *The Discoveries in Crete.*

beginning of the Late Minoan period were broken up into meaner dwellings in the troubled times that followed the downfall of Knossos. The Little Palace had an area of 9400 square feet, and a frontage of 114 feet, and the late Fetish Shrine, from which grotesque stones in the fancied shapes of Mother and Child were obtained, occupies what must have been a crypt in the original building. Dr. Evans reported that the discovery of some fragmentary clay tablets amid late house ruins proved that the fully developed linear script of Minoan Crete continued to be at least partially in use during the later period, an indication that the fall of the palace did not bring with it the immediate extinction of letters and all this would connote; but it must have brought to the old leaders a sharp descent from heights of wealth and power to a more or less precarious existence. And the fact emphasized by Dr. Mackenzie that some prosperous persons lived on this slope in the latest days of the Bronze Age does not contradict this statement.

Before taking final leave of Knossos, a word must be said concerning its legendary connections. Again sober fact corroborates fable. The Palace of Knossos is the Labyrinth and the home of the Minotaur. The frequent appearance of the double-axe symbol carved on the masonry and embellishing objects found within the walls, makes the name 'Place of the Double-axe' perfectly appropriate. The exact equivalent of this expression is found in the word 'labyrinth.' For *labrys* is a pre-Hellenic survival meaning 'double-axe' and *nthos* is a pre-Hellenic place-

ending, as in *Tirynthos* and *Korinthos*. The Earlier Palace was built before the great temple at Hawara, and it is not unlikely that the Egyptian building, long vanished, acquired the name 'labyrinth' as a result of a resemblance to the 'Place of the Double-axe' at Knossos. For the slightly earlier temple of Mentuhetep discovered at Deir el-Bahari does actually resemble the palace at Knossos in some important features. Even without the testimony of classic authors as to the mazy character of the vast Egyptian structure, the derived meaning of the word 'labyrinth' is entirely comprehensible to one acquainted with the intricate plan of the palace at Knossos.

On the walls of the Knossian palace the bull is represented so frequently that the Minos-Bull may be taken as a heraldic beast. If at the end of the Boer War, hostages had been sent from the Transvaal to England and imprisoned or executed, it might well have been said that the British Lion devoured them. Grote quotes with disapproval a theory advanced even in his day that the tribute of human victims paid by Athens to Minos was a historical fact. We have better reason for believing it. Furthermore, in view of the Knossian frescoes, Dr. Evans thinks it probable that contests in the arena between men and bulls date from Minoan times, and "that the legend of Athenian persons devoured by the Minotaur preserves a real tradition of these cruel sports."

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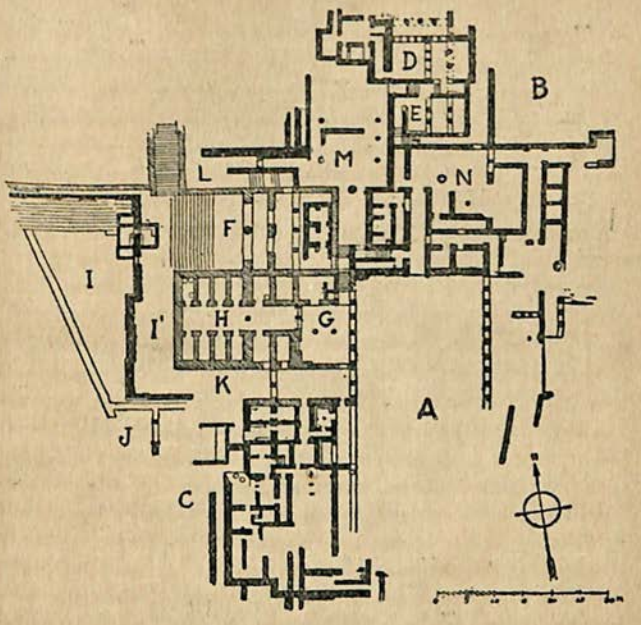
VI

THE SITES: PHAESTOS AND AGHIA TRIADHA

PHAESTOS

PHAESTOS, the Minoan site excavated by the Italian Mission, lies a long day's journey south of Candia. The road issuing by the western gate follows up a river-bed to the village of Daphnes, and leaving there the valleys rich with olive, plane and carob, climbs to the more open hillsides, with their patches of corn and moorland scrub. Beyond Aghia Varvara (St. Barbara) is the divide. It boasts no great height, for there is a distinct break in the chain of mountains that runs east and west the length of Crete, which makes Candia one of the coolest towns in the island, on account of the continual current of air north through this gap in the mountains. At a bend in the road, suddenly there bursts upon the traveller's view a wonderful vista of the largest and richest plain in Crete, the Messara. The hills break away from his feet and slope steeply to the plain, which appears as a vast patchwork of green and gold. To the south is a wall of scored and barren limestone mountains shutting off the sea, and east and west are the snow-capped ranges of Dicte and Ida, both claimants to be the birthplace



PALACE OF PHAESTOS

(Dr. Dörpfeld's adaptation of plan from *Monumenti Antichi.*)

A Central Court.
B North-east Section.
C Domestic Quarters.
D Outer Megaron.
E Inner Megaron.
F Hall of State.
G Men's Megaron.
H Magazines.
I Theatral Area.
I′ West Court.
J South-west Entrance.
K Main Corridor.
L Balcony.
M Peristyle Court.
N Inner Court.

of Zeus. A sharp descent to one of the many white dots in a cluster of green brings the visitor to the village of Aghios Dheka, where he will do well to stay the night and confide himself to the care of Manouli, who caters for the passing archæologist. This village has the advantage of being a classical centre; even the inn courtyard testifies to this fact, for it is littered with Greek and Roman remains—here a garlanded sarcophagus, there a row of stones with archaic Greek inscriptions; and the very outer stairway leading to the guest-chamber is supported by broken capitals.

A brisk two hours' ride in the early morning brings the traveller in sight of Phaestos, rising three hundred feet clear above the plain. Its dominating position, with extensive views of plain and mountain range, is a contrast to that of Knossos, which lies hemmed in in a valley. Such a site as Phaestos, the reader may think, was obvious; and Minoan sites are so plentiful, that the impression may have gained ground that excavators had only to walk up to a spot and dig, to find what they sought. This is by no means the case, and Phaestos was an example of the contrary. The ancient capital was known from tradition to be somewhere in the neighbourhood of the village of Aghios Joannis, but months of hard work were required before its position could be determined. Professor Halbherr, who had laboured so long in the field of classical archæology in Crete, was the discoverer; and one of the writers remembers his riding over on a spring morning of 1900 for a first reconnaissance, from which he returned, thoroughly discouraged,

to the scene of his past triumphs at Gortyna. The land was cultivated and covered with young olives, and disputes and disagreements were to be feared with the close-fisted proprietors. This was in April; in September, after several months of tedious trial, the great palace of Phaestos had been discovered.

Phaestos stands on the spur of a low range of hills running east and west, commanding the western gateway of the Messara Plain. Three heights were tried in turn before the easternmost revealed the great rival of Knossos. All were acropoles of the ancient city, the middle height being occupied by a public building and private houses of Minoan times, and the highest serving as a vedette at the western end nearest the sea. Neither Phaestos nor Knossos possesses circuit walls like Mycenæ, Tiryns, and Phylakopi, but Sig. Pernier, Professor Halbherr's able colleague, thinks that the outer palace walls were strong enough for defensive purposes.

The Phaestian ridge has had a long history from the Neolithic Age to Byzantine and even Venetian times. Outside of the palace area are cemeteries and other remains, which have not suffered as did the palace at the hands of later builders, and together yield objects of each period, from the Early Minoan graves at Aghios Onouphrios, on the north-west, to the Venetian church one passes on the ascent from the plain to the palace. One of these can be descried across the valley to the north-west, on the slopes of Mount Ida. It appears as a black speck, but is in reality a roomy cave, the Kamares Cave, from which the

famous polychrome ware of Middle Minoan times has its name.

As at Knossos, so at Phaestos, we have palaces of different epochs, but more easily to be distinguished. The Neolithic settlement had a long duration, and remains of it, chiefly in the form of pottery, have been discovered in many parts of the site. Early Minoan pottery was not forthcoming till recently, and even now amounts to a very small quantity. The reason for this is that the Middle Minoan builders made a fairly thorough clearance of the previous structure before laying their foundations; thus is to be explained the frequent occurrence of Middle Minoan structures resting immediately on the Neolithic. A few sherds of the Second Early Minoan period, similar to the mottled ware from Vasiliki, lie out on the eastern border of the Theatral Area, obtained from a small pit where the Neolithic merges into the Minoan. Also in the north-eastern section, while one of the writers was present in 1909, a fragment of a vase was dug up, similar to some found in the Second City of Hissarlik, and undoubtedly of the same date. This discovery was made in one of the magazines, of which another yielded the famous disc which will be described later. Further excavations at this point revealed the unsuspected presence of a north-eastern entrance.

Passing over the Neolithic settlement and Early Minoan occupation, the first palace whose existence can be proved was built in the First [illegible]le Minoan period, about the same time as [illegible] of Knossos, but lasted longer, not being [illegible] until the First Late Minoan. It is this fact

which rouses the suspicion that Knossos fell at the hands of Phaestos. In the rebuilding which followed, Phaestos is much clearer than Knossos, partly because it is smaller, but also because the Later Palace at Knossos included portions of the Earlier, whereas the builders of Phaestos treated the Earlier Palace in many parts as a foundation for the Later, levelling up and spreading cement freely. To this covering we owe the preservation of many Middle Minoan vases. Unlike other sites, including Aghia Triadha, there is no clear evidence of reoccupation in the Third Late Minoan period, and the Iron Age ware that has been found is insufficient for us to assign to it a precise date.

The palace is built upon four different levels, and gave the Minoan architect an opportunity of showing that he was a past master in the art of adapting buildings to uneven ground. Let us indicate these various levels before describing the different quarters. The lowest was that of the small shrines and the Theatral Area (I), as it existed in the Middle Minoan palace and lies uncovered to-day. In the Later Palace, the West Court (I') was carried over this area at the height of the fourth step of the broad stairway on the north side. From the West Court, the Later Palace was entered on the second level by a corridor (K) between the commissariat quarter (H) and a section (C) that includes sets of small chambers and baths, possibly intended for official guests and their servants. This imposing corridor leads past a guard-house to the great Central Court (A). To the north of this court lay the Royal Apartments, corresponding to the south-east quarter of the palace of Knossos. Level

with the court are a private corridor, inner court (M), servants' rooms, and finally two *megara* (D, E), an outer and an inner, corresponding in arrangement to the Hall of the Double-axes and the Hall of the Colonnades at Knossos. Sig. Pernier considers that the principal apartments were situated above the servants' rooms on a second storey level with the fourth terrace. On the third terrace was the Hall of State (F) at the head of the Grand Staircase, north of the magazines. Above the north-east corner of the West Court, and in a position to command the Theatral Area and the Grand Staircase, was a balcony (L), whence one might obtain a view of all that was going on in the palace—the spectacles, if any, and the arrival of country pedlars and foreign envoys and merchants. This, the fourth level, was reached by a narrow stairway from the Hall of State, and it communicated with a peristyle court (M) on the same terrace.

The difference of level did not in each case amount to a storey, but the Minoan architects, undaunted, took clever advantage of each rise. Roof rose above roof in steps, thus allowing light and air to penetrate, and avoiding, where possible, a light-well vertically open to the sky, letting in the rain and the direct heat of the noonday sun. The palace, though simpler than Knossos, has much in common with it in plan. Both have a great Central Court, a Theatral Area, a south-western approach (J) for the supplies, and magazines, baths, and pillared halls of true Minoan type. Dr. Mackenzie has proved that all the architecture at Phaestos is as characteristically Cretan as any found in the island. The men's *megaron* (G), on the

west side of the Central Court, seems to have played a part like that of the Throne Room at Knossos. The Grand Staircase was no less than 45 feet wide, and with the Hall of State gives us the most imposing vista found on any Minoan site. The hall communicated by a private door at the further end with the interior of the palace. Part of this hall is claimed by Dr. Mackenzie as an impluvium or light-well, but it seems to be unduly large for its function, and in comparison with other known light-wells; moreover it appears to sin against architectural unity by forming an anti-climax to the State Entrance.

The entrance for the supplies, as at Knossos, was in the south-west quarter. Here a corridor led past the magazines on one side and the quarters assigned to official guests and their servants on the other; at least, so these may be interpreted. Half-way along the broad corridor stands a pillar. On the nearer side is the only entrance to the series of magazines, and on the further a guard-house. Evidently a sentry was on watch at the pillar with the double duty of guarding the magazines and the entrance to the interior of the palace. At the end of the corridor opens out, spacious and impressive, the great Central Court. It is a fine cloistered quadrangle, about 150 feet long and 70 feet broad, paved with huge blocks covered with cement. We can picture the royal ladies and courtiers promenading here in the cool of the evening hour enjoying the sunset glow on the snow-capped summit of Mount Ida. Sig. Pernier has pointed out the symmetry of the palace plan, and has indeed likened it to a Roman camp, with its

regular lines and divisions. A pleasing example of this symmetry is a tribute to the ingenuity of the Minoan architect. The columns of the Central Court are alternately round and square; on the east side this arrangement presents no difficulty, but on the west are various apartments, doorways, and a corridor to be brought into the scheme. This is most cleverly contrived so that neither the columns nor the square pillars, while maintaining their alternate position, shall destroy the symmetry of the rooms of which they are made to form one side.

The ruins stand higher as a rule than at Knossos, and therefore in the court and elsewhere on the site we are more impressed by their dignity. But this is also because limestone has been used for solidity, and gypsum never for serious structures as at Knossos, only for door-jambs, panels, and decorative purposes. The adornment of the walls was simple. Frescoes were usually in monotint. Wall painting was of the simplest character, monotint or confined to linear or geometric designs, never attempting the ambitious compositions of Knossos. Masons' marks are as common as at Knossos, and even more various, about twenty-five signs in all, the trident appearing as frequently as the double-axe. The Theatral Area, as already mentioned, has been excavated down to the level of the Earlier Palace, some six feet below the level it had when incorporated into the Later Palace. It is evident that in neither stage of its existence could the flight of steps at the north end have served as a stairway, for it ends in a wall and leads nowhere; therefore the conclusion is justified

that we have here the prototype of the Greek theatre, with raised steps more than 60 feet in length, from which the people could watch the spectacles and games in the area below. A narrow flagged path ran obliquely across the area, providing a raised approach for the performers, somewhat after the manner of Japanese theatres.

For a study of the different epochs at Phaestos the south-east corner of the Theatral Area is best. The opposite method to that at Knossos was pursued here in preparing the slope. The terrace on which the Theatral Area rests was artificial; previously the hill sloped steeply to the plain. In this quarter the visitor can see no less than four different periods represented: the deep Neolithic pit with its primitive walls; the cellars of Middle Minoan houses; the massive and deeply-founded walls of the Late Minoan palace; and lastly the stylobate of a Hellenic temple. Up above, within the Hall of State, a deep trench reveals one of the magazines of the Earlier Palace with specimens of Middle Minoan pithoi still in position. They are high-shouldered, decorated in a simple but bold manner, with vigorous lines and massing of colour in blobs, quite Japanese in style.

If Phaestos is most instructive as a site, it is less interesting as a treasure-house, for there have been few finds of prime importance. It was therefore with great joy that the excavators in 1908 came across a wholly unexpected find in the north-eastern quarter. When carefully cleaned, the object was revealed as a terra-cotta disc, nearly six inches in diameter, with engraved characters on both sides forming spirals. The pottery with which it

was found dates it at about 1800 B.C., and it seems to be the first-known stamp or big die of its kind. The characters are pictographic, and Dr. Evans, whose authority on Ægean scripts is without an equal, believes it to be of Lycian origin. The signs include a rosette, vase, pelt, fish, eagle, galley, house, carpenter's square, hatchet, woman, running man, and a male head with feathered headdress, frequently repeated. This last is remarkably like the profile of a Philistine on the Ramesseum at Medinet-Habu. It is interesting to remember that a close relationship between Minoans, Lycians, and Philistines is fast being established, and constitutes one of the recent triumphs of archæology.

The reader will have been impressed, whether agreeably or not, with the complexity of the interior of Minoan palaces—their corridors, pillared halls, courts, magazines, and bath-rooms, and stairways seeming to lead everywhere. He may pertinently ask what was the external appearance. What met the traveller's gaze as he approached the great palace of Phaestos? We must banish any notion of towers or spires or minarets, and although four storeys were not unknown, yet no palace building attained that elevation above the main-floor level. From the outside, the chief impression was one of massiveness—*aspetto di robustezza*. The group of buildings showed as a tier of terraces, for, although the point is discussed, opinion is in favour of flat roofs, which were perhaps utilized as gardens. On closer approach great paved areas, broad stairways, and vistas of painted columns impressed the visitor and hinted

at the bewildering variety and splendour that awaited him within.

AGHIA TRIADHA

Aghia Triadha, or Holy Trinity, is the name by which an important Minoan site between Phaestos and the sea is known. It is a small palace or royal villa, and was possibly the residence of the heir-apparent to the principality of Phaestos. It lies less than two miles from Phaestos, and about two and a half miles from the sea, at the western extremity of the Phaestian chain. The situation is an attractive one. Opposite rises the sharp-peaked Mount Kentros, and beyond to the right the snow-clad range of Mount Ida. Below is a plain densely covered with olive-groves, through which meanders a stream, losing itself in a sub-tropical sea, where a hot belt of sandy shore and a single palm tree remind us that opposite is the coast of Africa.

Like the palace of Phaestos it was built on terraces. The walls are of finely squared ashlar masonry, and remain standing to a greater height on the whole than any other Minoan building. How far Aghia Triadha goes back as a site is uncertain. Sherds have been found belonging to the First Middle Minoan era, but the earliest villa of which we have definite evidence was built in the Third Middle Minoan period, and its successor in the Third Late Minoan. Thus in both cases this site, as a residence, was later than the parent one at Phaestos, whose two palaces were erected in the First Middle Minoan and First Late Minoan

periods. However, the epoch of Aghia Triadha's greatest prosperity, as we shall find true also of Gournia, was the First Late Minoan period.

The earlier villa was a small affair, with a cluster of houses around it; but in First Late Minoan times, synchronizing with the rebuilding of the Phaestos palace, followed an expansion. There seems to have been a recrudescence throughout the island at this time, after some general catastrophe as to which history is yet silent. At Aghia Triadha there was a clearing and levelling, and practically a reconstruction. The villa became everything, and the houses disappeared. Fine *megara* arose with handsome gypsum benches and panels, and the villa became worthy to be called a palace. At the northern end, many of the alterations made in the course of this reconstruction are visible: the different levels of the courts; changes made in boundary walls; noticeably the erection of a boundary wall which deflected a straight street around a corner, and a road which has been cut across a drain.

The palace erected in the Third Late Minoan period occupied a much smaller area, as did its predecessor in early days.

It is not, however, as a site that Aghia Triadha claims the interest and attention of the student of Minoan civilization, but rather as a storehouse of artistic objects. Of Phaestos the reverse is true, and hence these two sites in close proximity complement each other.

Just without the ante-chamber of the principal *megaron* a long series of tablets was found, inscribed with the first style of Linear Script (Dr.

Evans' 'Class A'), the style that appears at Gournia and in connection with the beginnings of the Second Palace at Knossos. This is not so much an earlier stage of the form of writing ('Class B') in which the great majority of Knossian archives are inscribed, as it is a parallel and related script; a change of dynasty must account for its non-appearance in the Palace Period at Knossos. One chamber at Aghia Triadha was christened *la stanza dei sigilli*, because of the hoard of seal-impressions it contained. These are small lumps of clay, on each of which a picture sign has been impressed; on the obverse we see marks of the string to which they were attached. The merchant of Zakro, whose counting-house was discovered by Mr. Hogarth, contented himself with one stamp, but at Aghia Triadha, as at Knossos, a counter-mark was often added. At the latter place, in fact, care went even farther, and we have some signs of triple control. Among the pictures on sealings from Aghia Triadha are women dancing, women adoring sacred objects, warriors, a man with a lion, a duel with lances, a seated goddess, and the august Lady of the Wild Creatures (πότνια θηρῶν), this being a replica with very slight variations of the design on an engraved gem from the Vaphio tomb.

Among larger objects the frescoes and carved stone vases take first rank, but as without these our chapter on Minoan Art would lack its climax, we refrain from describing them here. Another precious discovery is of far less artistic merit, but of very great importance to those interested in the religious customs of Minoan times.

This is a sarcophagus of soft limestone in the form of a rectangular chest (52 ins. long, 18 ins. wide and 32 ins. deep) with four low square feet; no cover has been found. The body was of course in a contracted position. The stone is covered with a thin layer of fine plaster on which scenes are painted, connected with the cult of the dead. The work is careless, showing many traits of the Third Late Minoan period and cannot be earlier than 1400 B.C.

On the best-preserved side, at the extreme right, is the erect figure of the dead closely swathed, standing before his tomb, beside which grows a sacred tree. Three persons approach him with offerings, the first bearing the model of a ship, to typify perhaps the voyage of the dead, the other two carrying young calves, which are drawn as if galloping—an absurd and slavish imitation of a well-known Minoan type. On the left a priestess is pouring wine into a large vase, standing between two posts surmounted by double-axes upon which birds, probably ravens, are perched. A lady and a man in long rich robes attend the priestess, the man playing a seven-stringed lyre. In the writers' eyes these double-axes are not fetishes, but are emblems referring to the lineage or status of the deceased.

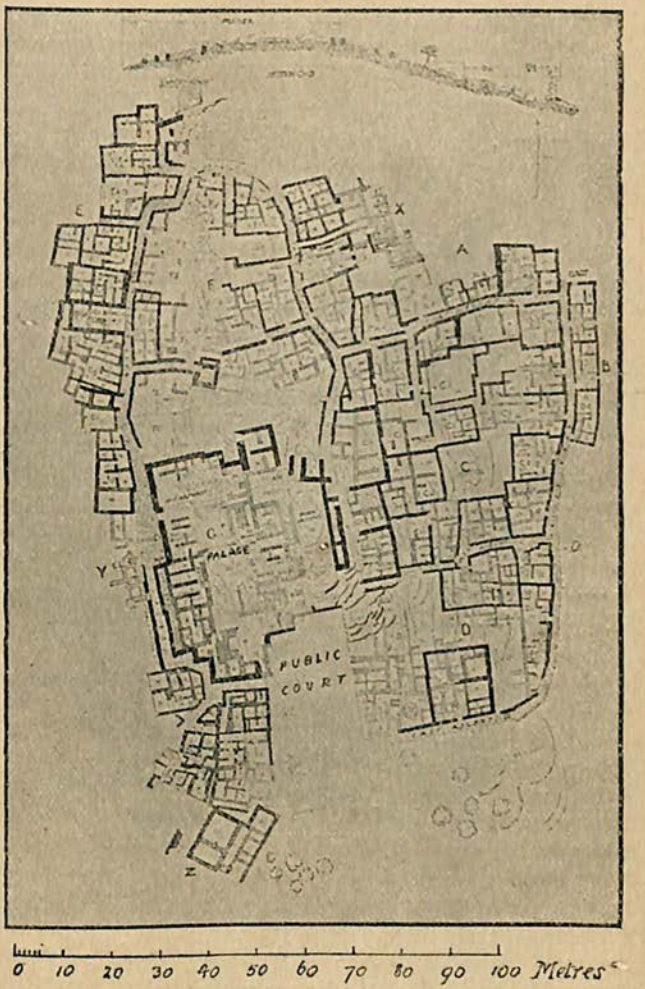
The opposite side shows a bull sacrificed, a priestess before an altar, and a man playing a flute, followed by five ladies. On one end is represented a two-horse chariot driven by two women; on the other is a chariot drawn by griffins, in which a woman conducts a figure, swathed and of ashen hue, which probably represents a dead person.

The sarcophagus suggests interesting connections. Aghia Triadha was easily accessible to Egypt. On the Warriors' or Harvesters' Vase, scholars have recognized an Egyptian priest playing a sistrum, and Egyptian influence is conspicuous on this sarcophagus; but not less interesting is M. Paribeni's discovery, that Minoan girls playing Ægean lyres are depicted in a tomb at Tel-el-Amarna of the time of Amenhotep IV. Whereas the priestesses and offerants on the sarcophagus wear a short skirt of peculiar cut, the lay persons taking part in the religious rites, two men and six women, all wear long rich robes, and the flute player keeps to the ancient Minoan fashion of dressing his hair in long curls. This ceremonial dress reminds us of the epithet 'trailing-robed,' which Homer gave to the Athenians, who we know were proud of belonging to the old stock of Greece, and might claim kinship with the princes of Aghia Triadha.

VII

THE SITES: GOURNIA

FROM Phaestos a pleasant way of reaching the east end of the island is by travelling the length of the Messara Plain and pushing one's way through the picturesque valleys that wind in and out among the eastern foot-hills of Lasithi. One passes ancient Priansos (modern Kastelliana), Homeric Rhytion, Homeric Malla, and Kalamavka, a prehistoric post; thence northward, by the site of Hellenic Oleros to Kalo Khorio, the Istron of coins and inscriptions. With the lovely Gulf of Mirabello before him, the wayfarer now turns east, and follows closely the north shore of the Isthmus of Hierapetra. One cove succeeds another, each a veritable delight to the eye by reason of golden rocks and richly hued water. At length a wider valley is reached, surrounded on three sides by hills, which drain into a small river that courses through the valley to the sea, debouching between rugged and picturesque promontories. This valley is called *Gourniá*, because its formation is thought to resemble the trough (*gorni*) from which barnyard animals drink. The name occurs elsewhere in Crete for similar situations; in fact, it is almost equivalent to our topographical use of the word 'basin.'



PLAN OF GOURNIA

(From *Gournia, Vasiliki and other Prehistoric Sites.*)

With the exception of a few sheep-folds, field walls, and the tiny chapel of Aghia Pelagia, the valley of Gournia contains no present-day erections; but it is worth visiting, because there rises about two hundred feet above the small river, and on its right bank, the most perfect Minoan town yet discovered. The presence of this town was unsuspected until 1901, although many archæologists had actually crossed unaware the lower part of the site, in following the high-road that connects Candia with Sitia. For three thousand years and more it lay buried and forgotten; no tradition of its existence survived; no reference to its history is found in ancient authors, though possibly a reminiscence lingers in the name of the classical city which the Greek geographer Strabo locates in this neighbourhood; for Minoa recalls the great epoch during which this prehistoric town flourished.

The discovery of 'Gournia,' as we may conveniently call the ancient city, was due entirely to empirical methods. Dr. Evans had told Miss Boyd that there were Iron Age tombs on the heights, two thousand feet above the isthmus, and while excavating them in 1900, Miss Boyd became convinced that there had once been a Bronze Age settlement somewhere in the vicinity. The Isthmus of Hierapetra is still a portage between Europe and Africa, and must have been used much more in days when mariners with frail crafts took great care to avoid such stormy waters as meet about the east end of Crete. Across the Isthmus, only eight miles from sea to sea, it was fair to expect a chain of ancient settlements,

but a discouraging search was necessary, in the spring of 1901, before the first of these settlements could be located. At length George Perakis, a peasant antiquarian of Vasiliki, produced a fine seal-stone, and in going to the spot where it was found, Miss Boyd with her colleague Miss Wheeler (now Mrs. Williams) saw a ridge strewn with ancient potsherds, almost entirely concealed beneath a thick growth of wild carob trees. Within twenty-four hours thirty men were at work cutting down the carobs and digging trial trenches in different parts of the ridge to test the site thoroughly. In less than three days they had opened houses, were following paved roads, and were in possession of enough vases and sherds, bearing octopus, ivy-leaf, double-axe, and other unmistakably Minoan designs, to make it certain that they had found an important settlement of the best period of Cretan civilization. Then excavations on a larger scale were undertaken, supported by the American Exploration Society of Philadelphia. One hundred men made the average force during three seasons of work—1901, 1903, 1904. Ten girls were constantly employed in washing the potsherds. Eighteen men were allowed to use the pick and knife, an equal number shovelled; the others, with the exception of a few skilled in carpentry and wall building, removed in baskets and barrows the earth and stones that covered the ancient town.

Gournia lies about sixty miles by road from Candia and four miles west of Kavousi. Or one can reach it by boat from Candia, landing at Aghios Nikolaos, nine miles distant, or at the

tiny port of Pachyammos, only three-quarters of a mile eastward from the site.

In ancient times men built their homes on barren ground, and lived within narrow compass to spare their fields. At Gournia they chose the least rugged part of a limestone ridge, one-quarter of a mile from the sea, and every foot of it was built upon. In like manner the acropolis at Athens was covered with the dwellings of king and people before it was devoted exclusively to the gods. But unlike Athens, Gournia was never fortified.

On so rocky a site there could be little expectation of finding earlier settlements than the last. Almost all traces of more ancient habitation were obliterated when the town we now see was built at the close of the Middle Minoan period. Nevertheless, the existence, on neighbouring slopes, of primitive burials in rock-shelters, a waste heap of pottery from the Third Early Minoan period, and 'house-tombs' of the Second Middle Minoan period prove that the valley was occupied from the beginning of the Bronze Age.

When a town is perched on a rock, its streets must needs conform to the lie of the land rather than to a fixed plan. The low acropolis at Gournia, foot-shaped like that of Tiryns, is edged by a road that on both sides leads to the small palace of the local chief, which is at the heel of the foot. A second main road runs parallel with the ridge in the eastern valley, and narrow streets, ascending the slope, connect the two. The roads are about five feet wide, neatly paved with small boulders, and the houses stand side by side flush with the streets.

Several house-doors are reached by short flights of steps from the streets. The roads seem to have been built at some middle period in the life of the town, for in some instances the house walls rest upon them, and in other places they have modified the plan of dwellings.

Decidedly the best general view of the ancient town is now obtained in approaching from Pachyammos, as one descends by the modern highway into the valley; for on this eastern side the houses are well preserved and stand in regular blocks, separated by narrow streets which mount the ridge in long flights of steps, somewhat as in modern Naples. One sees no circuit walls, no "castle standing amid the huts of dependants," but an open unwalled settlement, evidently at peace with its neighbours.* A large space near the south end seems to have been a Public Court or Market-place, used no doubt also for spectacles and games. Fronting this is a small palace, and the short flight of steps leading up to it is supplemented by a second flight at right angles, backed by a blank wall showing an adaptation on a small scale of the arrangements made for spectators in the Theatral Area at Knossos. The prince or petty 'king,' if we may use the Homeric term, whose palace this was, made no attempt to keep his subjects at a distance. The street that skirts the edge of the acropolis leads to his doors, and the houses of the burghers elbow his palace as shops elbow cathedrals in continental cities of modern Europe. In the centre of the town stands a small shrine, to which we ascend by a narrow lane paved with stones worn by the feet of pious worshippers.

At the beginning of excavations only a few stones *in situ* showed above the surface; most of the houses were entirely hidden, being discovered in the course of digging by workmen who, in following roads, came upon their stone thresholds. The upper parts of the houses had fallen long ago, covering the site with their ruins. On the top of the hill, where denudation is constant, there was but a scant covering of earth over the native rock; here some of the best objects of bronze, stone, and terra-cotta were found within two feet of the surface, and, indeed, at certain spots which we now know to have been within dwellings, the native rock lay bare. Where earth is so shallow there is little chance for noting strata, and pottery had constantly to be consulted to eke out the evidence furnished by the few overlapping walls. But on the side slopes, where earth accumulates rapidly, the workmen were sometimes obliged to dig fifteen feet before reaching virgin soil, live rock, beaten floor, or stone paving, as the case might be. And now one may ride along the old paved streets, checkered by the shadow of ancient house walls, and repeople in imagination the long-deserted homes of the Minoan folk.

All that was found in the first and second campaigns at Gournia appeared to be of about the same age, the First Late Minoan period (1700–1500 B.C.), but in 1904 it was impossible to doubt that certain houses (X, Y) were buried before the town as a whole was built, and that others (e.g. Z) were occupied and perhaps built after the town had been destroyed. The older houses are of Middle Minoan date. The town was attacked and burned

about 1500 B.C., and was deserted throughout the Palace Period. Its partial reoccupation took place early in the Third Late Minoan period, since when the ridge has never been built upon.

Gournia houses are superior to any houses of Bronze Age burghers yet found on the Greek mainland. Their plan and construction have been sufficiently described in our second chapter, where they are cited as typical of humbler Minoan dwellings. In them was found "much the most varied and comprehensive apparatus of Minoan domestic economy available for study," and nowhere else is better revealed what "high artistic aim and achievement went with restricted provincial means in that remote age." For corroboration of these statements by a *Times* reviewer, the reader has only to turn to the above-mentioned chapter, and to the remarks concerning pottery in the chapter on Minoan art. It is highly probable that in such quiet homes were born and bred the artists and artisans whose handicraft enriched the palaces of Knossos and Phaestos, for in several instances where almost duplicate objects have been found in the capitals and at Gournia, the one from Gournia is the better artistically, and it is even harder to believe that provincials, unproductive themselves, were blessed with superior powers of selection than to suppose that they created.

The conflagration that destroyed the town left proof of its strength in various and somewhat curious ways. Wooden steps and posts were entirely burned away, leaving deposits of charcoal and marks of smoke-grime. Sun-dried bricks were

baked bright red; limestone was calcined; steatite was reduced to crumbling fragments; and in a doorway of the palace lay a shapeless lump of bronze, once the trimmings of the door. Strangest of all was the effect on plaster, which played an important rôle in building. The intense heat reconverted it into unslaked lime, and this, under the first rain, again formed plaster, encasing vases or anything else on which it fell in an air-tight, almost petrified mass. Sometimes at the core such a mass was still moist. In time the excavators looked to rooms where the destruction had been most complete, and where the pick struck such solid opposition, to yield them the best returns; for in them the possessions of the ancient burghers remained undisturbed, awaiting the patience of our workmen to knife them out.

In a well-built house on the top of the ridge a whole carpenter's kit lay concealed in a cranny. Was it deliberately hidden under the corridor floor by its owner, when the ships of the destroyers of the town hove in sight? In an adjoining room a horizontal black streak in the earth showed where there had been a wooden board, now long burned or rotted away, and on this housewife's shelf fourteen loom-weights of clay and stone were ranged in order. Other houses contained vats for washing oil, standing on stone benches, with the amphoræ and stamni before them to catch the liquid, just as they were left 3500 years ago. At the entrance of the town from the harbour side stood the busy forge where saunterers met. One of the good smith's most useful articles came into the hands of the excavators, and more than any

other single find made the past live again. This was a block of schist of irregular shape, with moulds for casting chisels, nails, and awls cut in the four sides. This stone was so precious a possession that when it cracked in a jagged line across the top, the owner used the utmost care in mending it. First he drew a narrow strip of copper twice around the block, binding this fast with turns of the strip, and then he drove in flat stones as wedges between the strip of metal and the block, a neat piece of work that brings us into very close touch with the everyday life of the burghers. The block was found at the door of the forge, where it had been dropped by a plunderer or by the owner himself trying to save his possessions from a burning house; perhaps because of the break he cast it aside for the excavators to save thirty-five centuries later.

A single tablet bearing Knossian script of Class A shows that the provincial inhabitants of Gournia were not without letters. The tablet bears numbers, upright lines denoting units, a dot indicating ten, with some unintelligible signs which may denote percentage or multiplication. Among the characters are signs derived from the hand, the adze, and the ox-head.

Great interest was evinced in the discovery of a shrine at Gournia in 1901, for until that time no Minoan or Mycenæan shrine had been discovered intact. A much-worn paved way ascending to the crest of the ridge terminated in a short flight of steps that led to a small enclosure about twelve feet square, situated in the very centre of the town. It is possible that the rude walls of this enclosure

never stood higher than eighteen inches, and that within this precinct flourished a sacred tree such as we see represented on Minoan gems and rings. When excavated, a wild carob had twisted its roots about a group of cult-objects huddled together in one corner of the precinct. It is true that they are very crude, made in coarse terra-cotta, with no artistic skill; nevertheless, they are eloquent, for they tell us that the Great Goddess was worshipped in the town-shrine of Gournia, as in the palace of Knossos. Here were her images twined with snakes, her doves, the 'horns of consecration,' the low three-legged altar-table, and cultus vases. To complete the list, a potsherd was found with the double-axe moulded upon it, an indication, perhaps, that some who claimed kin with the masters of Crete, paid their devotions at this unpretentious shrine.

Gournia tells us little of the princely side of life, for the small palace lying on top of the ridge was sadly ruined and almost empty of finds. Yet this chieftain's home deserves some description, for it shows the conversion of a genuine Cretan manor-house into a quasi-palace of the Knosso-Phaestian type. It is worth noticing that the double-axe is scratched lightly on one of the largest blocks in its walls, almost as if in derision, the only occurrence of a mark on masonry in the town. The whole building occupies an area of about half an acre, equal to twelve or more of the burghers' dwellings. Although much smaller than the contemporary palaces of Knossos, Phaestos, and Tiryns, it stands on an equal footing with the so-called palaces of Troy, Mycenæ, Athens, Phylakopi,

and Palaikastro. Judging from our present evidence, no part of it was built before the First Late Minoan period, and its original form was that of a large provincial house differing in little else than size from the average country dwelling. The house was remodelled when the rulers of our town aspired to ashlar masonry and other special features of a palace, fashions which they probably learned from the capitals; for example, in ashlar masonry, the rule of making each course recede five to ten centimetres from the edge of the one below it; the typical bath-chamber; two flights of steps meeting at right angles overlooking a paved piazza, and a west court used as an approach by tradesmen bringing provisions, which were stored in magazines occupying relatively the same position as in the palace at Knossos. Ashlar masonry is set in as a veneer between parts of heavy rubble (Cyclopean) masonry; perhaps the architect who was superintending the work died, or the ancient equivalent of 'funds' gave out, or the builders wearied of their undertaking, or a menace of that destruction which finally overthrew the town put a stop to it; at all events, the work of reconstruction was never completed.

A prior right of way leading from the north to the south end of the town commanded respect from the builders of the palace, who permitted the road to pass between the west magazines and an outstanding 'loggia.' Issuing from the palace domain, the road continues south-west, and a narrow passage leads east to a large open court and the main (southern) entrance. The steps already mentioned as commanding the court, and

backed by a blank wall, once led, we believe, to the original threshold of the manor-house, whence there was direct access to the Central Hall; but after the remodelling, entrance was by way of steps at right angles to the old flight and along a crooked corridor, like the devious passages of Knossos. Provincial ambition was unable to compass the spacious Central Court of the larger palaces, and the old Hall of the manor-house was therefore retained. It is about thirty feet square, with two rows of alternating square pillars and round columns on the west side, and in the south-east corner is a small alcove with a plastered bench on three sides and a single column midway on the open side. In this recess the prince could hold private audience; larders were at hand to provide for his guests and retainers, and he could retire by a private staircase from the north-east corner of the Hall to the domestic apartments. In the general conflagration that destroyed the town, fire raged through the central part of the palace, and we found the Hall choked with burned timbers and slabs fallen from an upper flooring. There is no indication of a light-well at Gournia, and we conclude that light was introduced through spaces between roofs of different heights, as Dr. Pernier believes to have been true in the Hall of State at Phaestos. In that case the roof of the double colonnade must have been lower than the ceiling of the Hall.

The palace was built on three rock terraces, rising from west to east. Above the magazines on the west side were one or possibly two storeys; above the Central Hall one storey; but above

the apartments that occupied the highest terrace on the east, a roof only. Thus the palace had a *cellar floor* for the west magazines; a *main floor* to embrace the Central Hall, adjoining magazines and corridor, Southern Entrance and Portico, together with the storey that was built out at a slightly higher level than these over the western and north-western parts of the palace; and an *upper floor* to include the apartments on the highest eastern terrace and the storey built out at their level over the Central Hall. Whether this top storey extended farther west than the Central Hall is uncertain. We think it unlikely. Judging from modern houses in the eastern Mediterranean, an irregular stepped elevation, in accordance with which the roof of the lower western part of the palace might be used as a terrace on a level with the uppermost floor, seems more probable than that the top storey extended over the western part also, and a flat roof covered all.

Probably the most important rooms of the palace were above the western magazines. Various objects of value had fallen from them into store-rooms below—three finely-carved ceremonial lamps of stone and five plainer ones, sealstones, an electron amulet in the shape of a tiny squatting woman wearing the wide-flounced Minoan skirt and raising both hands to her head, and a charming jug bearing the double-axe ornament. From the evidence offered by supporting walls we may predicate four rooms, each about 22 by 16 feet, in this upper suite. In the north-western corner of the palace was a set of small apartments with a bath; their easy communication with the public

rooms of the palace, and with the town by way of the west entrance, would make them suitable quarters for the men of the household, whereas the eastern terrace quarters, which were reached from the main floor by two staircases, would serve better for women, as they were more secluded.

Although the palace was protected by the crest of the ridge from northerly sea winds, yet from the roof-terraces, which overtopped the little town, the lord and his household could enjoy one of the finest seascapes in Crete, the tiny bays and sprawling headlands that go to form the picturesque coastline of the Gulf of Mirabello, and the silhouette of range after range of mountains from Dicte to the far point of Spina Longa reaching out into the brilliant Mediterranean. To the east they could see over a rim of hills the peaks of Thriphte, a range that crosses the island from sea to sea, forming the eastern boundary of the Isthmus of Hierapetra, and shutting off Sitia from the central provinces of Crete. In Sitia also were Minoan towns, and these will next claim attention in our survey of ancient sites.

VIII

THE SITES: PALAIKASTRO AND OTHERS

PALAIKASTRO, in the extreme east end of the island, is the Minoan site excavated by the British School at Athens. It was discovered in the course of a search for the site of the classical city, Itanos; but subsequent excavations, by revealing a Greek stele inscribed with the hymn to the Dictean Zeus, which identified adjacent remains with the temple at Heleia mentioned in a well-known frontier award of classical times, have proved that Heleia, not Itanos, occupied this position. A curving bay, lofty headlands, a solitary bluff acropolis ending steeply seawards, and a rich plain of olive groves and corn-land, such is the picturesque setting of Palaikastro. The prehistoric town lay almost on the seashore at the foot of the southern line of hills, and between it and the steep acropolis, Minoan cemeteries dotted the plain. It was a larger, busier place than Gournia, but less compact, more straggling, and has suffered more, both at the hands of its ancient destroyers and from the ravages of modern peasants seeking building stone. A Venetian survey of the seventeenth century describes it as uninhabited on account of the frequent raids of Corsairs, and even to-day the population retains its migratory character.

Palaikastro's greatest prosperity coincided, in part at least, with the Palace Period at Knossos. An earlier town probably existed in Middle Minoan times, and fell, as did the older palace at Knossos, at the close of the Second Middle Minoan period. To this earlier town must belong the 'bone-enclosures,' walled spaces where heaps of bones lay buried, with excellent specimens of the so-called Kamares pottery beside them. Five-sixths of the pottery found on the town site belong to the Late Minoan era, and most of this to the second part of it. The town was reoccupied for a long time during the last stage of the Bronze Age, and we have one interesting object of this era in a gaily painted earthenware sarcophagus. It is of the house-type, with gable roof, which Dr. Evans thinks was copied from wooden chests brought from Egypt. The frame posts are covered with bands of spirals and other formal ornament. The four large panels bear, severally, a bird, a stereotyped marine design, a winged gryphon, and—most interesting of all—a standard which may be either royal or religious in its significance, or both. A slender column supports a pair of sacred horns, with a double-axe rising between them. At Palaikastro, as at Phaestos, the classical period is represented by a Hellenic temple. Roof tiles, a fragment of a frieze, bronze tripods and shields were found, but no signs of a residential population. The bronze shields were contemporary with the bronze objects from the Cave of Zeus on Mount Ida, and numerous votive offerings show that this was a popular and prosperous shrine.

A well-paved main street, running roughly

east and west, with narrow turnings on either side, divides the town into irregular blocks. One portion of this avenue has a deep gutter, which is really the pavement of the older road beneath, and the squared masonry on this street is quite impressive. The houses, though on a larger scale, are much like those at Gournia, except for the fact that no slope exists to modify their plan. Three of them possess large rooms, called on the excavator's plans *megara*, and one boasts no less than twenty-three rooms. Another reminds us of the shops at Pompeii, by reason of its weights, jars, sink and drain, and yet another is clearly a wine-press "with bed and receptacle for must." Palaikastro was a flourishing seaport, whereas Gournia was a rural town. The seaport was naturally more cosmopolitan—foreign sailors were seen in her streets; whereas Gournia was more conservative, more typical of Minoan tradition.

In a room off the main street was found a series of seventeen fillers or rhytons, finely decorated with marine designs in an elaborate lacy style. Several delicately carved ivory plaques belonged no doubt to merchant-princes, patrons of the arts. A curious decoration, not found elsewhere, attracts the visitor's attention in one of the Palaikastro cases in the Candia Museum; it must have been the work of a local and eccentric artist. Miniature animals were moulded in the round and attached inside to the bottoms of certain vases. One in particular represents the familiar scene of a shepherd with a whole flock of sheep. Another find of popular interest is the extraordinary collection of terra-cotta figurines unearthed by Professor

Myres in the shrine at Petsofa, near Palaikastro. It is easy enough to understand the votive meaning of *simulacra* of human limbs, a display worthy of Lourdes, and of domestic animals; but one wonders why vermin are so frequently represented, and what motive of gratitude impelled the grand dames of Palaikastro to offer images of themselves in fashionable dress and hats of modern size. The mode is that of the Third Middle Minoan period, and offers some marked contrasts to the better-known fashions of Late Minoan days.

The chief sites in the island have been briefly described, and their main characteristics touched upon. There remain other smaller sites which deserve to be mentioned. In the south of the island, Aghios Onouphrios, the so-called tholos near Aghia Triadha, and the discoveries of M. Xanthoudides, ephor of antiquities, at Koumasa have revealed burial deposits of the Early Minoan period. At Vasiliki and Mokhlos, near Gournia, Mr. Seager has thrown more light on the culture of that epoch.

Vasiliki is a settlement on a knoll, jutting out into the isthmus, commanding the isthmus road from the Gulf of Mirabello to Hierapetra. It is remarkable as having preserved in excellent condition the remains of several Early Minoan houses and an extraordinary fabric of pottery—a brilliantly mottled red and black ware, which, it is true, has been found throughout a wide area from Turkestan to Spain (even with fortuitous analogies in the New World), but nowhere of such unusual quality and form as at Vasiliki.

Mokhlos and Psyra, islets lying off the north

coast, a few miles east of Gournia, have recently excited interest. In 1907 and 1908 Mr. Seager made some surprising discoveries on these islands. Barren and without water, they offered little attraction. Nevertheless they were occupied throughout Minoan times. Mokhlos is about half a mile long, and two hundred yards distant from the coast, opposite the modern village of Tourloti. So shallow is the water between the shores that the island is thought to have been a peninsula in Minoan times, offering harbourage on either side. On the south-western slope was made the noteworthy find, in an Early Minoan necropolis, of a treasure comparable to that of the Second City at Hissarlik, which will be described in the next chapter. On Psyra are well-built houses of the First Late Minoan period, contemporary with Gournia, which have yielded a considerable number of vases in stone and pottery, and a fragment of painted relief in Knossian style.

Between Mokhlos and Sitia, M. Xanthoudides has excavated two sites: at Khamezi he claims to have discovered an oval house of the Middle Minoan period; and at Mouliana he found interesting burials of the Third Late Minoan period, long swords, and other bronze paraphernalia in bee-hive tombs.

Zakro, a small Minoan coast town about eight miles south of Palaikastro, was excavated as early as 1901 by Mr. Hogarth. It had a short duration, mainly in the First Late Minoan period, but a prior settlement is attested by a large quantity of Middle Minoan potsherds found in an ancient pit. It was the last port of call for ships bound to

Egypt and Libya; a busy place, to judge from the number of clay seal-impressions that remained in one merchant's office. Certain of the seal types have connections with Anatolia, and form a link in the commercial relations between Crete and the Orient, a subject that is now receiving careful attention from the finder of these seals.

Perhaps the most dramatic search ever made in Crete was that by Mr. Hogarth in the cave of Dicte, above the modern village of Psychro. In this cave, overlooking the mountain plain of Lasithi, the Mother Goddess was revered from Middle Minoan times. The upper cave was her sanctuary so long as the waters filled the *katavothron* below; but in the Late Minoan period, when the waters had receded, her cult invaded the mysterious depths of the lower cave, and continued to attract votaries until about 900 B.C., when the rival cave on Mount Ida came into vogue.

Mr. Hogarth effected his entrance into the Dictæan cave by blasting the rock that had fallen from its roof, and thoroughly cleared the upper chamber. The lower cave had almost succeeded in evading the impious hands of the modern scientist and guarding its long-cherished secret. Mr. Hogarth had even packed up, preparatory to his departure, when, as if by instinct, he turned to explore the depths. A surprising discovery awaited him. One of the writers was present before the search was completed. A merry crew of youths and girls were splashing about in mud and water with lighted candles, but the discomfort mattered little, since they were gathering from

the mud and prying from the stalagmite niches hundreds of bronze offerings left there ten centuries before Christ. In the first three hours the rate of discovery was one offering a minute.

The finds included hair-pins, brooches, and other articles of feminine adornment, knives, *simulacra* of double-axes and of animals, a tiny model of a chariot drawn by an ox and a ram, and above all a statuette of Aman-Ra easily recognized as a work of the XXII[nd] dynasty.

Both the Dictæan cave and the famous cave on Mount Ida were known to Greek tradition as the birthplace of Zeus; but Zeus was god of the Achæans, and has no place in Early Minoan religion. Therefore we must conclude that Achæan invaders foisted him upon Crete, and, to establish his supremacy, had him born by the Earth Goddess in her own cave sanctuary.

IX

MINOAN ART

NO province of art seems to have been neglected by the Bronze Age inhabitants of Crete. Their attainments were as varied as they were successful. Painting, engraving, sculpture, bas-relief, architecture, the carving of precious stones, gold-chasing, moulding, inlaying, and bronze repoussé, all were attempted. It requires some temerity, thus early in the organization and arrangement of the mass of material from Minoan sites, to attempt to construct a scheme of the growth and development of prehistoric Cretan art, and the writers present the following brief sketch with considerable diffidence.

The Minoans at the opening of the Bronze Age seem to have been in an inventive and experimental mood. Perhaps their imaginations were fired by the possibilities bronze put into their hands. It is difficult for us to realize how great a step is taken when a people emerges from the Stone Age and learns the secret of casting metal into the forms they require. This secret, Crete must have learned from the south-east. For their pottery the Early Minoans tried all manner of shapes and techniques, foreign and domestic, old and new. In seal-engraving two influences were already at

work: one, to satisfy some local need, invented rude pictograms carved on three-sided seals of steatite; the other, under the tutelage of Egypt produced on ivory more or less intricate designs of formal character. Indeed throughout her rapid development, Crete seems to have regarded Egypt as we in the western world have regarded classic lands, or as Japan looked to China through the Middle Ages. Yet Crete was no slavish imitator—we make no apologies for repeating this—but borrowing hints and ideas, recast them in her own mould. The height reached, at that remote epoch, in stone carving and jewellery has been revealed, to the astonishment of archæologists, in Mr. Seager's discoveries at Mokhlos. From an Early Minoan necropolis, the lucky excavator obtained scores of delicate vases of alabaster, marble, breccia, and steatite in a great variety of shapes, some worked as thin as a modern teacup. We cannot be sure what tools were employed in the manufacture of such vases. Much can be accomplished by the patient use of wet fibre and sand. Dr. Montelius contends that bronze probably was not tempered in prehistoric times, but that bronze tools were used with a skill unknown to-day. It appears that ancient craftsmen made these soft implements and others of perishable material serve them more effectively than we can well imagine. Some of the Mokhlos stone vases are of local material, and we do not know that any were imported, although there are resemblances to Early Dynastic vessels of Egypt. As to the jewellery, it is of pure gold made into diadems, pendants, chains, hair-pins, and bead necklaces—

all showing a much greater advance in technique than in design, "as beautifully wrought as the best Alexandrian fabrics of the beginning of our era."

Among the ancients, Crete was famed for the skill of its people in working metal. This is the meaning of the legends which made it the home of the Idæan Dactyls. Schrader tells us that the name 'Dactyls' belongs to the same cycle of ideas as the Germanic 'hop-o'-my-thumbs,' and expresses the amazement which children of the North felt, on their descent to the Ægean, when they beheld the art of melting hard metal in the fire and fashioning things of price out of it. Crete's triumphs in metal-working and also in gem-engraving, which requires somewhat of the same firmness and precision of hand, preceded her achievements in sculpture and painting. Metal-working influenced ceramics, and in Middle Minoan times the potter with his wheel and brush imitated the dark lustrous surface, the thin walls, and even the fluting, joints and rivets of metal vases. This imitation had been noted, and was confirmed by the discovery at Gournia, within a Middle Minoan house-tomb, of two tall clay cups of *kantharos* shape, together with their prototype in silver. Silver is very rarely found on prehistoric Ægean sites, but since this discovery a number of fine silver bowls, also of Middle Minoan date, have been unearthed at Knossos. The masterpiece of this period is a votive offering of "very elegant fern-like sprays of thin gold plate and wire," found by Dr. Evans in the north-east quarter of the palace at Knossos, in connection

with objects from a shrine of the Dove Goddess. This relic shows great delicacy and refinement of taste, not surpassed in Hellenistic days. The same nicety is discernible in seal-stones, whereon purely ornamental motives, first evolved under Egyptian influence, reached a high degree of elaboration.

A new era in art was dawning when this tendency to elaboration in seal-engraving gave way to pictorial work, in which the subjects of the earliest pictograms are sometimes repeated, but with a fidelity to nature and an artistic perfection only acquired by long training of eye and hand. The best examples we have of these pictorial seals are of a very simple character, such as the exquisitely cut design of a bull in a stall, on a gem found with the silver cup from Gournia. This simplicity is also conspicuous on the best gems of the First Late Minoan period; two exquisite dragon-flies on a green onyx from Gournia town show an admirable restraint in expression and a skill in composition, comparable with that of the Greek coins of the fourth century B.C. "The Gournia artist," as Mrs. Williams says, "was ever quick to grasp the decorative possibilities of the most minute details of animal and vegetable life. In this instance he has contrasted one of the ordinary species of dragon-flies with one having round wings, very suggestive of the *Nemoptera Coa*, which is still an inhabitant of the Ægean islands."

The new spirit of freedom in art found its fullest embodiment in painting and in inlaying, which is a form of painting in metal. There are a few fragments of fresco work of the Earlier

Palace of Knossos, enough to show that the design was formal and that vivid colours were employed, as on the contemporary polychrome pottery; but our first acquaintance with a style of painting which was not purely ornamental, but made a successful attempt to convey an emotion, is through the exquisite wall-painting of a youth gathering crocuses—a fragment showing us with what manner of frescoes the Later Palace was decorated before its reconstruction. We could well spare some of the grandiose work of the Palace Period for a few more examples of such freshness and unassuming grace. But none are forthcoming from the ruins of Knossos. The frescoes of Gournia are completely destroyed; it is hardly worth while to refer, in passing, to the traces of reeds painted on plaster fragments found in the bath of the palace. But at the other site where finds of the First Late Minoan period are richest, the paintings have been better preserved. The Pheasant-hunting Cat from Aghia Triadha is a masterly delineation of feline stealth. This picture is of far more than antiquarian interest. The quiet confidence of the unsuspecting bird, the waving plants soon to feel the impress of the marauder's cautious tread, and the prowling cat, intent on his prey and nearly ready for his final spring, excite in the observer an emotional interest such as is never felt in the presence of mere records of the past.

Many frescoes of the Palace Period at Knossos make their chief appeal as interesting records; for although they are brilliant and full of action, replete with the daring and vigour of a long-

dominant people, yet they have lost some of the subtlety of their predecessors. Although but a fraction of the whole has come down to us, we have an astonishing variety of subjects. A priest, miniature scenes of men and women in courts and gardens, a triple shrine, the piquant profile of a Minoan girl with cherry-ripe lips, at least four different representations of the bull, who was clearly the Minoan king of beasts, may be mentioned in addition to those already referred to in the description of the site.

The Cup-bearer is decidedly the best-known work of Minoan art. This fresco, from one of the south-west corridors, shows a youth with spare form and small, well-balanced head. The eyes are long and narrow, and by an error common in early art they are drawn in full view, although the face is in profile. The hair is black and wavy; the skin is swarthy, but one must admit the probability that this deep shade was a convention, as unreal as the pure white used in painting women. Artists merely emphasized a difference of colour which was the result of more and less exposure to the sun. In general terms, the life-size figure has an alert and cleanly built body and an intelligent, rather proud young face, a type intermediate between the ancient Egyptian and the ancient Greek. As to the merits of the picture, praise outweighs censure when against the incorrect drawing of eye, chest, and thigh, we balance an undeniable distinction in style. For there is nothing commonplace in idea or execution, and the evident endeavour to produce a genuine artistic effect exalts this work above mere illus-

tration or ornament, with which most ancient craftsmen, not Hellenic, were content. The youth wears a loin cloth of bright colour richly woven in a four-petal design. The colours are almost as brilliant as when laid down over three thousand years before. His ornaments are two heavy gold bands on the upper arm and his signet worn in a light band on the left wrist. Limbs, chest, and head are bare. He holds a long, funnel-shaped vase with a single handle, the top level with the crown of his head, the point just below the line of his waist. The vase was of precious metals, gold and silver, conventionally represented by yellow and blue in the painting, and it is borne with evident pride by the advancing youth. We have already mentioned the significance of the wave-line in the background as showing that the Cup-bearer had connections with the sea. What Minoan youth had not ?

Very different from the calm dignity of the Cup-bearer is the extravagant action portrayed in an acrobatic scene with bulls, that decorated a wall on the east side of the palace. The Toreador Fresco shows a boy and two girls in male attire, performing with bulls. One of the girls is about to leap over the bull by catching his horns, or to be tossed by the frantic creature ; the other stands with outstretched arms, ready to catch the youth who is successfully performing the dangerous leap. The artist's temerity in attempting such a composition equals the desperate daring of the performers.

One series of Knossian frescoes is executed in miniature with astonishing skill. Fine strong

outlines and a minimum use of colour have sufficed to give us a most lively picture of a dense crowd of men and women on balcony and in garden, animated spectators of some Minoan pageant. In another instance the theme is of a less peaceful character; the storming of a town is depicted in much the same manner as in the famous Siege Scene on the fragment of a silver cup from Mycenæ. We would fain possess more of these wonderfully vivid sketches of ancient Cretan life, but in our disappointment at finding so few of them, we must not forget to be grateful for the care which has preserved these small and fragile masterpieces.

The same carefulness was exercised in preserving " a series of enamelled plaques, which had evidently belonged to a considerable mosaic, the material resembling Egyptian porcelain but of the native Knossian fabric." This mosaic had its place in an upper storey of the Later Palace before its reconstruction, and is thus contemporary with the Crocus-gatherer and the Pheasant-hunting Cat; and shows many of the characteristics displayed by painters of the First Late Minoan era. In fact the kinship of the two arts is obvious. Mosaic is perhaps a misleading term, for each plaque was a complete little painting in itself. Dr. Evans thinks they were fitted into a wooden chest, a true Dædalean *larnax*, of unique interest. The scenes depicted are *genre* compositions greatly recalling those of the Miniature Frescoes. In addition to the fragments of forty houses ranged together in the actual streets of a fairly compact Minoan town, we find the

country represented by running water, trees, goats and oxen. The human figures are mostly warriors, some marching, some kneeling to shoot their bows, and others grappling in hand-to-hand fight. Thus both peace and war were illustrated on this truly marvellous piece of furniture, as on the Shield of Achilles. As Dr. Evans remarks, "The art here is historical, perhaps a living record of a Libyan expedition."

But the most remarkable specimens of faience work came from two treasure chests below the floor of a small chamber south of the Throne Room. To-day they fill a case in the Candia Museum, and copies of them may be seen in many of the important museums of the world. They seem to be the wreckage of a shrine of the Great Goddess whose care embraced all creatures of the sea and land, and in a special sense all those who had gone to her underworld habitations. Like the mosaic they belonged to the Later Palace before its remodelling. We must content ourselves with bare mention of the minor objects—the copies of flowers, fruits and sea-shells, the flying-fish, and two exquisite cups, the prettier of which is "a pale green vase with fern spray decoration, and rose leaves springing in relief from the top of the handle and spreading over part of the inner margin." Nor shall we pause to describe the votive robes and girdles that would fascinate any modern child, and the small figures of votaries, all executed in faience.

Art interest centres chiefly in the so-called Snake Goddess and the reliefs of animals with their young. By means of the most delicate

modelling and a very discriminating use of the brush, the Minoan artist produced astonishing effects in these low reliefs. The goddess stands about thirteen inches high, wearing a high head-dress, a richly embroidered jacket laced in front, a skirt with horizontal stripes and a short double apron. Her hair falls over her shoulders and three snakes are twined about her, one of which coils around her tiara and projects its head above it. The ground colour, including the flesh tint, is milky white, and the other details are in purple, purplish brown, and black. The pose of the little figure is dignified and firm, the side face is even winning; but the eyes are fierce, and the out-stretched hands holding the heads of the snakes are so tense, and show such strength, that we instinctively feel this was no person to be played with, but a being to be feared. Those who sub-scribe to the name Snake Goddess suppose that the Great Goddess is here represented in her chthonic aspect, but other scholars claim that all such figures may be interpreted as temple snake-charmers. In contrast to this statuette, with its suggestion of horror, is the bright charm of the animal scenes. They reflect the gentler offices of the Goddess as protectress of the young. The one showing a goat suckling her kid is remarkably true to nature; while an awkward long-legged kid is taking his fill, another bleats impatiently to his solicitous mother. The pose of the mother shows a surprising amount of grace in a picture that might easily have been stiff; one readily agrees with Dr. Evans that this composition possesses not only naturalism, but " a certain ideal dignity

and balance." And of its companion piece, a cow suckling a calf, he says, " In beauty of modelling and in living interest Egyptian, Phœnician, and, it must be added, classical Greek renderings of this traditional group are far surpassed by the Minoan artist."

In the awakening to naturalism the potters had their full share. Even in Early Minoan times, the potter who used red paint on a buff ground was feeling after a freer form of design than anything we see in light-on-dark decoration before the last stage of the Middle Minoan period; and interest in plant forms was actually manifested before the custom of incising pottery was abandoned. The Cretan potter's first appreciation of nature was subjective; not distinguishing clearly between himself and the world in which he moved, his moods were in tune with winds and waves. The picturesque objective value of flowers and seaweeds did not appeal to him in the beginning, but he was full of wonder at the evidences of motion and growth; and he expressed his wonder in symbols, adopting a shorthand which remained his heritage throughout a long period of increasing self-consciousness. The line left on the sand by receding waves, the ripple on water as the wind scuds across it, the mysterious inner markings of a shell, the thousand varieties of spirals in shells and in tendrils, the shadows cast on his path by interlacing twigs, the stir of leaves and bending of branches, the flight of petals and seed-vessels, and the whirl which is at the basis of so many forms of motion, gathering many particles to one focus

and flinging them forth again—these attracted him. The artist was awakening to nature; his aim, however, was not to imitate what he saw, but to record an impression, somewhat in the spirit of a Japanese artist.

Such decoration belongs essentially to the dark-on-light technique, for the white, red, and orange pigments used on the light-on-dark wares are chalky and could never have been thrown on in this manner.

Toward the close of the Middle Minoan period, charming naturalistic designs made their appearance in white paint on a dark ground, such as the exquisite sprays of lilies seen on a vase from Knossos; but these were painted under the full influence of the new school, when the Middle Minoan polychrome style was dead, and all that remained of its methods was the use of white, a use which lived on as an enrichment of Late Minoan wares.

At the height of his power the Minoan potter went direct to nature for his inspiration. His designs are full of grace and exuberance; reeds, grasses, and flowers adorn his vases; the life of the sea is represented with astonishing fidelity; but this naturalism is controlled by a rare power of selection and grouping. Some of his most charming patterns were painted on vases as thin as the egg-shell cups of Middle Minoan style, others were executed on jars so heavy and coarse that no idea of their being decorated was at first entertained by the excavators. With a true instinct for beauty, he chose as his favourite flowers the lovely lily and iris, the wild gladiolus

and crocus, all natives of the Mediterranean basin, and the last three, if not the lily, of his own soil. Such sincerity in decoration was maintained to the close of the First Late Minoan period; then it gave way to a growing formalism which developed into the architectonic style of the Palace Period. Without having iris or lily in his mind, the painter continued to use curves and lines which he or his predecessors had learned from them; and he disposed his principal designs within frames of ornament, which have given rise to the term 'architectonic' by which they are now generally described.

No site has given better illustrations of the potter's development than Gournia. In Middle Minoan days, when dark-on-light designs were sketchy in character, some unknown hand decorated a sturdy blunt-spouted jug found in one of the older houses, with a composition very effective in its simplicity. The body of the jug is divided into three unequal panels framed by groups of three vertical lines, and each panel bears a bold design of a solid vertical scroll. A more delicate fancy was at work on a conical rhyton of very graceful shape found on the same slope. The surface is divided into three zones; the uppermost is filled by spirals, each spiral ending in a flower at the centre; the second by the inner tracery of a shell; and the lowest by a charming array of living crocuses.

The height of naturalism in marine design was reached in the well-known Octopus Vase from Gournia. This is of the shape called by archæologists the *bügelkanne*, or stirrup jug, from a fancied

resemblance in the small handles which spring from the top of the sub-spherical vase to meet the false spout, the true spout being on the shoulder. The vase is covered with a rich marine design—two writhing octopods in the midst of smaller sea-animals—executed in the finest Island style, with black paint shading to brown on a lustrous buff ground. Their fantastic shapes recall the wonders of the Naples aquarium, corals, feather-stars, sea-anemones, sea-urchins, and sea-snails. This vase is paralleled, but not equalled, by a bowl and an ewer found in Egypt, but undoubtedly of Cretan origin since they are utterly foreign to Egyptian ceramics, by the well-known Marseilles *aiguière*, and by an ewer from Phylakopi. Just before Gournia was destroyed, delicacy and formalism were becoming noticeable, as is well illustrated by a large tub, whose principal design is derived from the iris, and suggests the lines of the Ionic column, the volutes being embellished by white lines and dots; crocuses, ascending 'plant-spirals' and large red dots fill the field; dark waves outlined in white divide the design into panels. The best examples of the succeeding architectonic style are large jars which have been found at Knossos and on the mainland of Greece. These are lavishly painted with intricate patterns taken second-hand from marine and plant life, and there is something increasingly Egyptian in the appearance of certain of the plant-motives. Great perfection in technique was reached before the potter's art began its descent to the merely commonplace.

The metal-worker of ordinary skill could not

advance far in the path of naturalism. His material hampered him. Only a few masters could hope to produce such work as the repoussé gold cups of Vaphió with their snaring of wild cattle or the silver Siege Cup of Mycenæ. We name these in connection with Minoan Art because the late discoveries on Cretan soil leave scarcely a doubt of their Cretan origin or influence. An easier and more economical method of obtaining the same effect was by carving steatite and overlaying the soft stone with gold leaf. This artifice was practised on certain of the steatite vases which excite our admiration, although probably not on all. Aghia Triadha has been most fortunate in preserving three matchless treasures of this kind almost intact; Knossos can show small fragments of vases of equal merit. On the best Knossian fragment we see two Minoan youths taking part in a religious procession before a building of isodomic masonry surmounted by 'sacred horns.' It would be impossible to surpass the excellent spacing, the spirited pose of the lithe figures as they step proudly forward, each holding a shallow bowl at arm's length.

The vase first discovered at Aghia Triadha is a bottle rhyton with a zone of carving in low relief on the shoulder. This represents a procession of warriors or harvesters, as you prefer to call it. Archæologists are able to advance satisfactory arguments for either theory. We are not here concerned with the question of war or peace, the quaint costume of the leader, the nature of the objects carried by his followers, or the introduction of an Egyptian priest with

sistrum into a Minoan scene. But on this black stone, carved 3500 years ago or more, is a band of shouting men, advancing shoulder to shoulder, with a swing and determination worthy to be compared with St. Gaudens' marching soldiers on the Shaw Monument in Boston. Extraordinary technique was required to represent four abreast, each seen distinctly, one beyond another. The Parthenon frieze presents no more difficult problem in low relief.

The largest of the three carved stone vases from Aghia Triadha is a conical rhyton of the same shape as the long pointed vessel borne by Keftians in Egyptian tomb-paintings and by the Cup-bearer of the Knossian fresco. Its length, about a foot and a half, is divided into four zones, three of which show very varied scenes in boxing contests. Triumph and defeat, the guard, the spring forward, and the recoil are pictured with faulty but powerful technique. The theme of the fourth zone is a bull hunt, and it so closely resembles one of the Vaphio cups in treatment, the plunge of the bulls and the helpless figure of the miserable man being tossed by one of the angry beasts, that the two vessels might have been made by the same hand.

Although motion was particularly dear to the Minoan artist, yet he was as successful in treating inactivity and pent-up force. These are portrayed on the Chieftain Cup of the Aghia Triadha vases, only four inches high. A group of warriors with tower-like shields fills one-half of the field. The other side is reserved for two persons facing each other, one carrying a long staff or

lance, the other a sword. The Staff-bearer is a commanding little figure; it has been suggested that he is a king giving orders to his captain or his son going forth to battle; but it seems more probable that he is dictating terms to a defeated enemy, for the pride of the Chieftain and the dejection of the person he addresses are equally striking.

Artists who could put so much meaning into their portrayal of physical struggle, of a festal procession, and of the hour of surrender, surely had wide sympathies and a rare command of the technique of expression. We shall appreciate this the more fully when we remember that these vases have come down to us not as chosen examples to show the width of the artist's range, but as a chance residuum from a prince's hall.

We have said that metal-workers resorted to inlaying in their pursuit of naturalistic effects, yet the most notable example of inlaying found on Cretan soil is of purely geometric design—the Royal Gaming-board of Knossos—for which gold, silver, ivory, rock crystal, and the blue paste called *kyanos* were employed to produce a pattern somewhat like the game of parchesi.

Inlaid swords would be so much coveted by plunderers that it is not surprising that none have been found on Cretan soil. But there are indications that we may bring within the scope of Minoan art some precious examples of inlaying from the Shaft-graves of Mycenæ. The most truly admirable of Dr. Schliemann's finds are two sword-blades of bronze inlaid with silver and gold of different shades. In shape and in dimen-

sions they are too much like the undecorated swords of Gournia for the resemblance to be a chance one. They are short and comparatively broad, well suited for a seafaring people, and may be accepted as the typical weapon of the Ægean folk, who looked to Crete for leadership in the arts. What shall we say of the lions and hinds whose flight is so marvellously adjusted to the tapering blades, of the intrepid huntsmen hurling javelins at the lion they have brought to bay, of the wild fowl scattering before the cats' attack? Such work is far in advance of local Mycenæan production, and the theory that it is of Egyptian origin has long been abandoned. Where do we find such command of miniature art, such love of rapid movement, such success in infusing emotion into naturalism, but in Minoan Crete? These were no common swords; they may well have been the choice booty of some plundering expedition. The very value, in all times, of such loot would explain their absence from the land of their origin.

The Minoans learned to represent animals in the round almost as well as in relief; but we are less certain of their achievements in the highest form of sculpture, the likeness of the human form on approximately a life-size scale. The modelling of the lioness' head in marble and the bull's head in steatite from Knossos, and of the clay bull's head from Gournia, is of great merit, although it does not show the same freedom as the life-size painted relief of a bull in *gesso duro* which adorned the Northern Entrance of the Knossian palace. Painted relief, not sculpture in the round, was

used for the life-size figure of a Knossian king, and for another figure of a man of which we have unfortunately little more than the muscular forearm. Relief was also employed for the bird of gay plumage in the Queen's Megaron, but in unique combination with an intaglio technique for the tail and feathers.

The best proof of ability to render the human figure in the round is afforded by two ivory figurines about a foot high. They represent two youths poised as if for a dive or probably for a leap in the game of bull-catching, *ταυροκαθάψια*, that favourite sport of Minoans in the Palace Period. But in what way the little masterpieces were mounted as parts of a larger composition, we are as yet unable to form an idea. For there is no sign of an attachment, though the figures are in most unstable equilibrium. With arms extended, head thrown back, and muscles taut, there is yet a freedom and grace in the slender bodies that baffles description. Not only are the muscles faithfully rendered, but even the veins on the back of the hand, and the hair is represented by curling bronze wire plated with gold. These figures, if naught else remained, would give Minoans a place beside artists of China and Japan in the carving of ivory.

There is one form of relief, not yet mentioned, which was used as architectural ornament. Great attention was evidently paid to the fine execution of ornamental friezes, in which rosettes and elongated half-rosettes (as on the frieze of Tiryns) were favourite patterns. The undercutting is extremely careful on specimens from Knossos.

MINOAN ART

The large subject of Minoan architecture cannot be discussed until all the evidence is in. From our chapters on Minoan homes and ancient Cretan sites, readers will have gained some general idea of the procedure in building. The love of order and symmetry so conspicuous in classical architecture is almost lost to view in the rambling Cretan structures. They were built to meet demands of convenience and fondness of decoration in detail, and no great effort was made to obtain unity of plan. Certain features are so frequently repeated in the arrangement of baths and light-wells, of colonnades and doorways, that in time we may be able to evolve from them a definite Minoan style and to learn the course of its development; but there is no likelihood that this system will ever be on an architectural footing with the Greek orders or the well-balanced plan of the classical house. At present we can hardly see the wood for the trees. Excavators are still concerned with comparing the details of their buildings, and reconstructing them—in most cases on paper only.

No entire façade is standing, but we have information on the subject from the Sanctuary Fresco of Knossos. Here we see that the Minoan column, like the Mycenæan, was larger at top than at bottom, and that the capital was somewhat like the Doric, with the addition of a smaller square block below the abacus and above the echinus. The shaft was usually plain; when fluted, the curve was convex instead of concave. The light-well is characteristic of Cretan *megara*, as is the hearth of Mycenæan; as a rule it is

found at one end of the hall, enclosed on three sides by walls, with two or more columns upon a raised stylobate on the side open toward the room. A favourite mode of communication was by a series of doorways between square pillars along one whole side of a room. In long colonnades these square pillars were used in alternation with round columns. At Gournia the interesting fact was noticed that in the earliest houses, of Middle Minoan date, interior supports were always in the shape of rectangular pillars of masonry; in the palace of the First Late Minoan era, round columns of wood on stone bases alternated with square pillars; and in Reoccupation times, the Third Late Minoan period, the round form seems to have superseded altogether the square or oblong. The alternate arrangement is also seen in the First Late Minoan Palace at Phaestos, but does not appear in the palace at Knossos as reconstructed in the Second Late Minoan period.

In Crete single columns and three columns were more frequently used at entrances than the double columns which are normal at Mycenæ and Tiryns. Although we perceive considerable similarity between the early architecture of Crete and the mainland of Greece, there were characteristic differences. On the subject of Minoan architecture Dr. Mackenzie's work is especially valuable, and the completion of his articles on Cretan palaces is awaited with great interest.

In this rapid survey of Minoan art, nothing has been said of its wane. Amid such turmoil as followed the fall of Knossos, poetry may thrive,

but arts of hand languish, for they require some permanency of abode for their cultivation. The already over-ripe Minoan art declined in the Third Late Minoan period *pari passu* in Crete, and where it had been introduced on the mainland. Characteristics of this decadent style are degeneration of ornament, especially in plant and marine designs, increase of conventionality with little regard to beauty, neglect of form, and, in rare instances, the appearance of a crude, almost barbaric element. Fine metal-work held its own longer than any other branch, as may be seen from the rich jewellery found in the 'Tombs of the Nobles' of the Late Bronze Age at Kalyviani near Phaestos.

The Minoans in their dispersion, the Achæans in their free-booting expeditions, and the Phœnicians in their trade spread the decadent style far and wide from Gaza in Palestine to Sicily and beyond. Egypt and Cyprus have yielded many specimens of it; indeed this debased product, usually called 'Late Mycenæan,' so far surpasses every other style of pre-Hellenic art in quantity and in dissemination that in nine cases out of ten where 'Mycenæan' finds are reported they are of this class, and throw no new light on the great days when Crete was the art centre of the Ægean.

X

LETTERS AND RELIGION

LETTERS

A SURVEY of Minoan art should naturally be followed by some reference to the literature and religion of the period. But of literature nothing can be said so long as the tablets remain undecipherable. There is grave doubt lest they contain nothing more than inventories and other records of a strictly practical character, but it would be premature to despair of something better. Any day a bi-lingual inscription may be found in Egypt, Palestine, or Asia Minor which will give us the key we require. Many scholars are hard at work on the problem of the Minoan Script, and await with eagerness Dr. Evans' forthcoming publication of the Knossian material.

We give a brief outline of the development of Minoan writing as it is generally known to archæologists.[1]

In Early Minoan times, side by side with a class of seal-stones that bear decorative designs of Egyptian origin, there developed a purely local system of crude picture signs cut on three-sided

[1] The greater part of this chapter is taken from the contributions of Mrs. Williams to *Gournia*, pp. 51–55.

seals of steatite. The Middle Minoan period saw an elaboration of the early decorative designs and the development of pictograms into artistic pictorial forms cut on hard stones as well as on steatite. Further, the pictograms were abridged into hieroglyphic symbols, written on seal-stones and tablets, which appear to have some analogies with the Hittite system of writing. In these two systems the order of writing seems to be variable, and often a reversing (boustrophedon) arrangement appears to be followed.

By the beginning of the First Late Minoan period the hieroglyphic symbols had given place to a linear form of writing, Dr. Evans' Class A. In the following era, the linear script of Class B appears at Knossos, and is found on thousands of clay tablets saved from the immense archives of the Palace Period. This seems to be not a derivative from Class A, but a parallel form, and in the opinion of Dr. Evans its presence is due to a dynastic change. The palace records appear to be mostly accounts and inventories, and a decimal system similar to the Egyptian has been deciphered in which the units are represented by upright lines, the tens by horizontals, the hundreds by circles, and the thousands by circles with four spurs. The tablets on which these records are inscribed resemble slabs of chocolate, in colour, size, and shape. A find of tablets in the House of the Fetish Shrine, proves that the script of Class B was still employed when the day of destruction fell upon the remnant of the Minoans, who had established themselves amid the ruins of Knossos in the Third Late Minoan period. Moreover, we may believe that although

letters died in Crete, they did not perish utterly with the Minoan civilization, but passed from the Cretans to other nations, possibly through the Phœnicians, even as Diodorus relates.

In addition to these forms of writing there are marks on masonry, pottery, and the reverse side of ivory, bone, and porcelain inlays. These last are of the same character as the Egyptian trade signary, and, although of pictorial origin, they were early reduced to a single script, and appear to have been alphabetic. Of twenty-one varieties on the back of inlays which were found at Knossos, ten marks 'are practically identical with forms of the later Greek alphabet.' The marks on masonry occur chiefly at Knossos and Phaestos, and consist of the double-axe, trident, tree, and about twenty-five other signs, more or less definite, for some of which a religious significance is claimed. It is probable, however, that such signs as the double-axe and the trident had a secular meaning associated with a family, clan, or class, whence various usages might arise, in accordance with which masons would carve either their own mark on the stone, or the mark of the person for whom the stone was cut.

The practical minds of the Phœnicians appreciated the value of such systems of writing as they found in use among Cretans, Cypriots, Egyptians, Hittites, and Babylonians; and, having appropriated a short series of signs for their own needs, they passed it on to other folk through their trade, thus becoming 'inventors' of the alphabet for the western world, although the art of writing was probably never quite lost

in the Ægean basin from the time of its rude beginnings in the Third Millennium B.C.

RELIGION

In the words of a high authority, "the problems of Ægean religion are not ripe for settlement yet." Nevertheless, some fairly safe conclusions can be drawn from the evidence in hand. The chief pre-Hellenic divinity was undoubtedly a goddess whose fostering care embraced all living creatures and followed them into the underworld. The representations of her vary all the way from rude steatopygous figures of the Neolithic deposits at Knossos and Phaestos to the peculiarly Cretan form, with large bell skirt, that occurs in Late Minoan shrines at Knossos, Aghia Triadha, and Gournia. Many representations of her also occur on the mainland at Mycenæ, Tiryns, the Argive Heræum, and in graves in Argolis. With her are associated doves and snakes, typifying her connections with air and earth. Although her character was distinctly beneficent and pacific, yet as Lady of the Wild Creatures she had a more fearful aspect, one that was often depicted on carved gems, where lions are her companions.

The bull as prime object of sacrifice was offered in her honour. Like the elephant of Siam, he was both royal and sacred, the most useful of animals, and chief object of the hunt. His horns, both the real trophies and copies in clay, were set up on altars, shrines, and palaces, and libations of his blood were poured through rhytons made of various materials in the shape of his head, "just as,

in the early Chinese ritual, the blood was offered in a bronze vessel made in the shape of the animal that was sacrificed." [1]

Actual scenes of worship are often represented. Knossos has yielded a fragmentary fresco of a pillared shrine surmounted by sacred horns, with groups of men and women before it. On a steatite vessel from Knossos is preserved a glimpse of a building, with horns surmounting the cornice, before which passes a solemn procession of youths holding forth bowls of offering. Numerous scenes on gems and rings depict adorants or priestesses in various attitudes of worship before altars, miniature temples, and enclosures containing a sacred tree. Although a wild kind of dance is suggested on some rings, the great majority of cult scenes present the picture of dignified, orderly worship. It is worth remarking that Minoan art reveals none of the indecencies so frequently represented in the minor arts of classical Greece.

"The presence of priestesses in Minoan cult scenes is noteworthy. They dance in a ring or before a shrine in honour of the goddess; they bear the ceremonial cope and double-axe. There are other scenes showing women in attitudes of worship before a shrine, but in view of the lack of any distinguishing characteristics these women may be considered votaries quite as much as priestesses. It is true that men also appear in sacred dances, but so rarely that they seem to have performed a subordinate rôle in the rites. On the well-known signet from Mycenæ, priestesses

[1] B. E. Williams in *Gournia*, p. 52.

present flowers, lilies and irises, to the seated goddess, who wears a conventionalized iris in her hair. The lily and the iris were favourite flowers among the Minoans, and appear in both natural and conventionalized forms, in which latter case they can hardly be distinguished from each other. We find what appears to be the *Lilium Candidum* on a mould from Gournia and on a vase from Knossos. On a wall at Knossos there was a life-size figure in *gesso duro* in very low relief, representing a king adorned with a crown, and a necklace of the conventionalized flower (lily or iris); and a grave near Phaestos has yielded a gold necklace wrought with the same flower design as that worn by the Knossian king. It therefore seems reasonable to suppose that both the lily and the iris, like the lotus of Egypt, had a symbolic, and in some instances a religious meaning, perhaps with as profound a significance as the lotus of Buddhism or the annunciation lily of Christian art."[1]

Much discussion has raged around the significance of the so-called 'sacred double-axe,' which has been found in several shrines, and on at least one seal in the hands of the goddess. In the beginning, the double-axe was undoubtedly both tool and weapon; it easily typified human force, and could signify divine power by a transition as simple as that which makes our crown or sceptre a religious symbol. Plutarch tells us that the double-axe was a royal emblem in Lydia from prehistoric times down to the seventh century B.C. When found with a religious connection in Minoan art,

[1] B. E. Williams in *Gournia*, p. 53.

the double-axe may be either an ascription of power to the goddess, like the representation of Athena with a spear, an attribute of power in the hands of a worshipper, or the blazon of a votary or of the owner of the object on which the sacred scene is depicted. Often it appears on an object without having any sacred meaning whatever. The bipennis may have been the emblem of a distinguished gens or class (like the samurai class of Japan), which furnished kings to Knossos and princelings to the smaller communities. Even humble members of the gens or class would be allowed to use the emblem as the humblest member of a Scottish clan is privileged to wear its tartan. We have good authority for thinking that such a practice was not foreign to early Ægean ideas, for Herodotus states that the Greeks borrowed the custom of putting devices on their shields from the Carians, who "in ancient times were subjects of King Minos." The writers therefore hold that the double-axe in Cretan archæology is, as a rule, the blazon of the owner or of the person by whom or for whom the thing was wrought, probably sometimes a mere ornament, like "the Chinese *jui* or sceptre head, which early passed from its symbolic meaning of happiness to a motive of pure decoration."[1] When *simulacra* of double-axes were offered in shrines, as at Psychro, we believe that they referred to the status of the giver, and not to the divinity.

The 'Cretan Zeus' and 'Zeus of the Double-Axe' are such familiar titles that it is with surprise that

[1] B. E. Williams in *Gournia*, p. 53.

we learn that Minoan archæology offers very little evidence for the existence of a god, and no proof whatever of the existence of a god of such power as we associate with the name of Zeus. The truth seems to be that the Achæans foisted Zeus upon Crete at the close of the Bronze Age, had him born by the Earth Goddess in her own cave sanctuary, and gave him the Cretan symbol of sovereignty, the double-axe with which she had been honoured; so that the Cretan Zeus and Zeus of the Double-Axe became familiar conceptions to later generations.

The Great Goddess of Minoan Crete seems to have survived in various Hellenic divinities, notably in Rhea the mother or the mother of the Gods, and in Hera the spouse of Zeus. There is good reason to believe that in the compulsory marriage of Hera to Zeus is reflected the subjugation of a native race to Achæan invaders, whence the importance of the Ritual Marriage, ἱερὸς γάμος, as commemorating a reconciliation of the two religious systems, one having a god, the other a goddess as chief divinity. The characteristics of the ancient Cretan divinity lived also in Ge, Demeter, Athena as the goddess of vegetation, Aphrodite as counterpart of Astarte, and finally in Artemis, whose description of her own functions in Browning's great monologue corresponds perfectly with all we know of the Minoan Goddess.

> I shed in Hell o'er my pale people peace;
> On Earth, I, caring for the creatures, guard
> Each pregnant yellow wolf and fox-bitch sleek,
> And every feathered mother's callow brood,
> And all that love green haunts and loneliness.

XI

CRETE AND GREECE

THERE has been wanting to the story thus far woven some light from the mainland of Greece. Some may even ask was not Greece possibly the home of this pre-Hellenic civilization, which would thus have descended to her on her own soil? We have given the credit to Crete, since all stages of development through the Bronze Age are represented there, whereas in Greece it is not possible to produce the earlier stages in such completeness. The mainland finds which first reflect to any degree this high civilization belong to the First Late Minoan era, the earliest so-called Mycenæan. Occasional discoveries of pre-Mycenæan achievement are being made to-day, and doubtless more will follow, but after all that Greece has undergone in the way of excavation it is unlikely that we do wrong in denying the claim of Hellas to be the first torch-bearer of Europe. If we must call in Crete to explain the genesis and rise of art on the mainland, by the Late Minoan period Greece must be called in to throw light on the new influences which were reaching Crete. They will make clearer the fall of Crete, although at first they were not of a wholly destructive character.

For Greece it is more difficult than for Crete to

trace the early racial and cultural conditions. The absence as yet of adequate anthropological and archæological evidence warns us to go softly in attempting any description of the early Bronze Age of Greece. Most of the skulls that have been described in times past are not of certain provenance or date, and we wait impatiently for the publication of the mass of material, ancient and modern, which Professor Stephanos has collected. Taking the anthropological criterion of the cephalic index, Greece is much mixed to-day, but the farther we go back in our examination of skulls the more numerous the long-heads, and the longer they become. This agrees with the anthropological evidence for Crete, which is clearer; and this in turn falls in with the views generally held by anthropologists for the Mediterranean basin, that a long-headed, short, brunet people inhabited it from the earliest Neolithic times. To-day Greece is moderately broad-headed, whereas Crete is mesocephalic, that is, neither broad nor long, and the difference is to be explained by the more accessible position of Greece, open by land connections or easy coasting journeys to the inroads of peoples from the north. For it is known that there was, as there is to-day, a stream of broad-headed people stretching across the continent from the Pamirs on the east to Brittany on the west. The northern invasion has continued down to historic times, and Greece has suffered incursions of Slavs and Albanians who have increased the broad-headed tendency, immigrations which Crete has in the main escaped.

The long-headed autochthones of Greece and

Crete were from the beginning of the Bronze Age subject to two opposite influences, whose trend we must now endeavour to trace, bearing in mind that much which follows can only be regarded as a working hypothesis.

From the close of the third millennium B.C., when Europe was slowly emerging from the Stone Age, Greece was constantly overrun by migrating shepherd chieftains and their clansmen, who, we believe, spoke an Aryan tongue and held Aryan institutions. They came overland from the north through a mountainous region, and brought with them, as precious possessions, the patriarchal system (basis of a strong polity), a rich spoken language, and a store of myths, but no writing so far as has been ascertained. Tradition reports them fair in comparison with the native stock, but not necessarily blond.

This invasion of a pastoral fighting folk, known to us through Homer as the Achæans, was a gradual infiltration from a remote past of chieftains and their retainers, at no time very numerous. The later arrivals in this movement—let us say from the beginning of the Late Minoan period, *c.* 1700 B.C.—were not so primitive as their forerunners; they were thoroughly acquainted with bronze, used long rapiers that have been found in the shaft-graves at Mycenæ, and very probably came by sea. Tradition leads us to believe that some came from civilized lands, where their sires had already acquired great wealth; the last wave of Achæan invaders may even have brought iron. Seeking adventure and plunder, some stayed in the sunny south, taking to themselves wives from

the daughters of the native princes—as Pelops wedded Hippodamia—ever a favourite way for an intruder to strengthen his position. These Achæan *condottieri*, to use Dr. Murray's expression, seem to have been good talkers as well as bold fighters. By help of their tales and myths they were able to make the Aryan language we call Greek the speech of their adopted country; but this language contains to-day numerous place names and terms of daily speech—*ascriptus glebæ*, names of trees, birds, and fishes—which are precious survivals of the older non-Aryan language, retained because they belonged to the soil, or because Achæans had no equivalent for them. The native princes, on the other hand, seem to have been re-christened, and appear in classical mythology under pure Greek names—Cecrops, Erectheus, and the like—just as the North American Indian chiefs will go down to history under names whose elements are pure English, such as King Philip, Black Hawk, and Sitting Bull.

In contrast to Greece, Crete was more open to southern than to northern influence. Early communication with Africa and the Levant favoured a development along non-Aryan lines, and the island state became strong in art, in letters, and in religion, receiving many ideas from Egypt, and some perhaps from the Hittite civilization of Asia Minor. It long retained traces of the matriarchal system—witness the pre-eminence of a goddess, almost to the exclusion of male divinities, and the prominent place held by women in Minoan Crete, which is evidenced by their apartments at Knossos and by many representations of their

daily life in the wall-paintings. Mercantile enterprise carried Ægeans, notably Cretans, to distant lands, in search of raw materials for their own use and for trade. Europe was a rich field for exploration, yielding hides, wool, and, above all, metals; for copper, tin, and iron were all to be found within the areas drained by the Danube. Dr. Mackenzie thinks, "By the beginning of the Bronze Age, the valley of the Rhone must have played a dominant rôle of communication between the great world of the Mediterranean and the north; by that time it was probably already the high continental trade route towards the tin mines of Britain"—or of Brittany as M. Siret would suggest. The Black Sea gave them another highway, for by sailing to its eastern end they made connections with land routes from the region south-east of the Caspian, which was especially rich in tin. Being in closer contact with the older nations and free from inroads of more primitive folk, the Cretans made much more rapid strides in civilization than could be made by their kinsmen on the shores of Greece. They seem not to have aimed at expansion except by trade until the half-mythical thalassocrat, King Minos, whom we associate with the Second Late Minoan period, established his supremacy over the Cyclades, and probably a sphere of influence along the Greek coast. He also rendered the sea safe by suppressing piracy, probably the sea-rovings of the Northerners as well as the buccaneering of Carians and Phœnicians, and he caused his state to be recognized by Egypt.

The sea dominion of King Minos seems to have afforded a historical basis for Plato's legend of Atlantis,[1] although the philosopher himself was wholly unaware that Crete was the island state of whose existence the Egyptian priest had told Solon. Plato says of Atlantis that it was an island, lofty and precipitous toward the sea, lying on the way to other islands, whence you might pass to the whole of the opposite continent; that in this island there was a great and wonderful empire which had ruled over the whole island, and several others, as well as over parts of the continent. He tells us of the great harbour, with its shipping and its merchants coming from all parts, the elaborate bath-rooms, the stadium, and the solemn sacrifice of the bull. "When we read how the bull is hunted 'without weapons but with staves and nooses' we have an unmistakable description of the bull-ring at Knossos, the very thing which struck foreigners most, and which gave rise to the legend of the Minotaur." The only point in the description of Atlantis which is at variance with Crete is its situation outside the Pillars of Hercules. But this can be explained by the fact that, whereas the 'island furthest west' would well describe Crete to a home-staying Egyptian of the Theban Empire, the same expression must needs mean to Solon, a far more distant isle; moreover, in his day Crete showed little evidence of ever having possessed the fabulous power which he attributed to Atlantis. Only

[1] For this ingenious identification we are indebted to the anonymous writer of "The Lost Continent," *Times*, February 19, 1909.

the discoveries of the last ten years have restored its right to such fame.

Simultaneously with the Cretan expansion under King Minos there came increase of power and wealth among the lords of Argos, Mycenæ, and other pre-Hellenic capitals of Greece. Thucydides says "the dwellers on the sea-coast began to grow richer and live in a more settled manner; and some of them, finding their wealth increase beyond their expectations, surrounded their towns with walls." These princes were kinsmen of the Minoans with an Achæan admixture. Possibly they had had a hand in helping Minos to his throne, some of the more adventurous spirits carrying Achæan arms across the sea, at a juncture when the weakness of the reigning Cretan king, or of his line of succession, was apparent. It matters little whether Minos was an Achæan, a Pelasgian, an Achæo-Pelasgian, or a Cretan; Cretan civilization was far too securely established for a change of rulers to affect it deeply. A slight modification at Knossos in the direction of a gorgeousness that would please a vigorous and somewhat barbaric temperament does seem observable in the art of the Palace Period, as compared with that of the Middle Minoan and First Late Minoan eras. One fact is clear from the excavations, that the new power not only overthrew the old dynasty at Knossos, but compassed also the destruction of the lesser coast towns in rapid succession.

Readers would naturally expect from Greece itself evidence of an expedition to place a claimant on the Knossian throne, and of the thalassocracy

said to have been established by King Minos; for the natural outcome of such events would be a strong current of influence setting in from the highly civilized island. Plunder, too, might be expected, for the Achæans deemed it disgraceful to return without 'meed of honour.' As a fact, the shaft-graves of Mycenæ and the bee-hive tomb of Vaphio contained art treasures of Cretan origin, made in the era just preceding the supposed reign of King Minos. It further appears that the increasing wealth of the Achæo-Pelasgian lords attracted Minoan artists and artisans to the chief pre-Hellenic centres on the mainland—a peaceful invasion—and that these workmen introduced the 'palace style' of pottery, painting, and carving, as it has come down to us in splendid vases, in the bull-capture fresco of Tiryns, in the famous ceiling of the great-domed tomb of Orchomenos, and in frescoes of the palace lately excavated by Dr. Furtwängler at Orchomenos. Long ago it was recognized that such work belonged to a comparatively late stage of development in art, that it is in no sense primitive. The steps leading up to it have never been found on the mainland, nor in any of the lands where the origin of Mycenæan civilization was first sought, but they have now been discovered in orderly sequence beneath the soil of Crete.

Mycenæan architecture is not so obviously derived from Crete. The Pelasgians were themselves great builders, having at their command a better, more enduring stone than any the island produced. Scholars have called attention to differences between mainland and Cretan *megara*,

in respect of the numbers of columns across the front, the direction of the principal axis, and the presence of hearth in the former and of light-well in the latter, as befits northern and southern types; but the resemblances between them are also significant. Whether these are due to coincidence, to the kinship between Pelasgians and Minoans, or to an idea transmitted from Crete, is a question that must await further investigation on the mainland. The most cursory comparison of plans will convince one that the palaces of Knossos and Phaestos are far more highly evolved, more rambling and intricate in a style we call Oriental, than any building as yet found in Greece. The mainland palaces bear the stamp of greater simplicity of life, and possibly a stronger instinct for proportion, order, and symmetry, an instinct which may be an Achæan contribution.

Towards the close of the Second Late Minoan period, the Achæans, probably strengthened by a new influx of their tribe, became paramount on the mainland. Fired by success, they were ready to respond to any call, and in Crete may have assisted the *demos* to overthrow the dynasty of King Minos. Mercenaries and free-booters have small scruple about which side they take in a quarrel, and do not hesitate to overturn what their fathers set up. After a brief revival, immediately following the overthrow of the capital, the provincial towns of Crete were abandoned, because their maritime position exposed them to the attacks of sea-rovers. "The Isles were restless, disturbed among themselves at one and the same time," reads the well-known inscription of Rameses III.

Of this Third Late Minoan epoch we have among the literary treasures of the world two precious pictures, easily reconcilable in their differences, if one perceives the opposite standpoints. These are Hesiod's description of the Age of Brass and Homer's of the old days when Nestor held converse with better men even than went against Troy. It is as if Hesiod, guided by ancient homely tradition, had carried his vision of the use of bronze back to about the middle of the Second Millennium, when the break-up of the ancient native civilization was beginning. Beyond this he saw faintly eras of peace and plenty, which he typified by the precious metals. He voiced the past sufferings of the conquered race when he described the Age of Brass. Homer, on the other hand, dazzles us by the brilliancy of his canvas, on which blaze forth the deeds of Achæan chieftains, with scarcely a hint of the misery their exploits entailed on the folk of the soil. The Trojan War appears as the culmination of a long line of splendid Achæan adventures, and behind the ranks of the living warriors stand the shades of earlier Achæan leaders, mightier men than they. For two centuries these sea-rovers were the abomination of the Egyptians and of all peaceful peoples; but the greatest epic of the world was born of their roving, fighting life.

By the time of the Trojan war the whole population of Greece was Achæanized, although in some districts, such as Attica and Arcadia, less thoroughly than in others. The Homeric poems depict an age of transition which is typified for archæologists by the change from Bronze to Iron,

and we are taught by excavation data of that period that the more civilized elements in this transition were the older, not the younger. This fact must receive full consideration in all future attempts to solve Homeric problems.

In time the wounds of warfare were healed, and in classical Greece we see the results of the mingling of two unusually gifted races—one autochthonous, the other immigrant—the former contributing the tradition and technical skill of a highly advanced native civilization, especially rich in art; the latter its heritage of Aryan institutions, power of co-ordination, and an all-conquering language.

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(*Kn*=Knossos; *Ph*=Phaestos; *A.T.*=Aghia Triadha; *G*=Gournia; *Pk*=Palaikastro; *P*=Petsofa; *D*=Dicte.)

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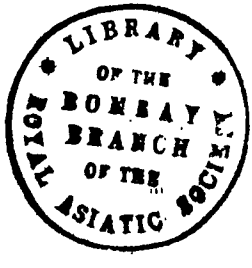

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